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ABSTRACT

Presented is a manual on improving occupational programs for the handicapped based on a study of 30 existing vocational education programs falling into one of three categories--modified programs for handicapped students in the regular classroom, special programs for the handicapped in segregated classrooms, or special programs for severely handicapped students in special classes or residential schools. Chapters on the following topics are included: laying the groundwork, designing a program, setting up a program, focusing on the student, meeting student needs, preparing for specific skill training, selecting type of vocational training, providing related or academic instruction, obtaining supportive and social services, assisting in transition to the work world, conducting job placement and follow-up, and achieving interagency, interdistrict and community coordination and cooperation. The bulk of the document consists of appendixes providing a checklist for program evaluation, abstracts of 30 programs studied in depth, detailed studies of three different kinds of programs, and the methodology used to develop the manual. (SB)

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Improving Occupational Programs for the Handicapped

U.S. DEPARTMENT OF HEALTH,
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FOREWORD

Everyone is entitled to the right to work. In our society, work is a basic human need not only for economic reasons, but also because it is through work that people feel needed and respected.

Most people with handicaps have the potential to become self-supporting, contributing members of society. In spite of this fact, most handicapped persons encounter more than the normal difficulties in obtaining and holding jobs. Those who do obtain employment are often relegated to the most menial of tasks, far beneath their potential abilities.

During the past several years, vocational education has contributed significantly towards improving this situation. More handicapped persons are becoming more skilled in a wider range of occupations than ever before. It is our hope, therefore, that this publication will help to promote continued development of occupational programs serving handicapped persons and that, as a result, many more of these people will realize their right to work.

The Bureau of Education for the Handicapped is committed to providing handicapped students with high quality career and vocational education programs so that every handicapped youth who leaves school will have had career educational training that is relevant to the job market, meaningful to his career aspirations and realistic to his full potential.

Edwin W. Martin
Deputy Commissioner
Bureau of Education for the
Handicapped

PREFACE

This manual is designed to stimulate dialogue, change and improvement in occupational education for the handicapped. It is addressed primarily to program administrators and professionals engaged in this vitally important work. If it reaches the wider audience of parents, state and local officials and the many individuals and groups interested in improving occupational education for handicapped young people, the dialogue will be enriched and the chances for change enhanced.

We have chosen to concentrate on the practical rather than the ideal. The methods and programs discussed were drawn from actual practice around the country considered adaptable almost anywhere. The reader is encouraged to contact the programs cited directly to obtain further information that may be specifically applicable to his situation. Appendix A provides a checklist aimed at providing guidance in evaluation of existing programs. It also contains abstracts of some of the thirty programs studied in depth, detailed studies of three different kinds of programs, and the methodology used to develop this manual. We do not believe this volume provides the ultimate answers for improving occupational education for the handicapped. The potential for future improvement will hopefully carry research forward rapidly towards more effective practice and techniques.

ACKNOWLEDGEMENTS

The preparation of this manual and the research project on which it was based resulted from a cooperative effort on the part of government and private groups and a large number of interested individuals. Teachers and administrators of all the programs studied gave generously of their time. Several officials of the U.S. Office of Education took a special interest in the project and offered advice and counsel unstintingly. These included Robert Herman, Gail Beaumont, Lois Elliott, Melville Appell and Frances Saunders.

When the project began in August 1972, an advisory board was created which assisted in various stages of the project. Its members deserve special thanks. They were: Mary P. Allen, then of the American Vocational Association; Ray Andrus, AFL/CIO; Mark Battle, Mark Battle Associates; David Bushnell, Human Resources Research Organization; Calvin Dellefield, National Advisory Council on Vocational Education; Roy Dugger, President, Texas State Technical Institute; Harold Goldstein, U.S. Department of Labor; Kathryn Gorham, National Association for Retarded Children; Aaron Gray, Assistant Superintendent for Special Services, Peoria Public Schools; Emily Lamborn, then of the National Rehabilitation Association; H. Paul Messmer, President's Committee on Employment of the Handicapped; Jack M. Sink, Staff Development Center, University of Georgia; Robert Taylor, Center for Vocational Technical Education, Ohio State University; Fred Weintraub, Council for Exceptional Children.

A project team of consultants to the Management Analysis Center, Inc. of Washington, D.C., contractor for the U.S. Office of Education for the project, deserves special mention also. That four-member team of vocational and special educators included Richard J. Baker of Auburn University, Oliver P. Kolstoe of Northern Colorado University, Arnold B. Sax of University of Wisconsin - Stout, and Donnalie Stratton, Bureau of Vocational Education, State of Kentucky.

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INTRODUCTION

In recent years, Americans have begun to focus more attention on the special educational needs of the handicapped. With a growing recognition of the needs of this small but significant segment of the population, the courts, state legislatures and federal government have asserted the right of the handicapped to medical treatment and educational opportunity. This has been a healthy development -- one which has led to positive efforts all across the land to improve the quality of education offered to those Americans who have special needs due to physical, mental or emotional disabilities.

In the overall scheme of education for the handicapped, vocational or occupational education plays an important role. Every individual has a desire to work and the potential to achieve some level of work skill. The individual and the society benefit if the overall dependency of the handicapped can be reduced. It is not enough, therefore, merely to assert that the handicapped have a right to education. Educational services must be provided to help each child achieve his or her maximum potential.

Pattern of Expanding Federal Aid

While precise data is lacking, only about half of an estimated seven million handicapped children receive any educational services at all. Reflecting a strong national commitment, the U.S. Office of Education (USOE) has undertaken many new initiatives. The goal of the federal government will not be attained until all handicapped children receive an education designed to help them develop their individual abilities to the fullest.

Twenty years ago, the federal role in education to the handicapped was extremely limited. A subsidy for Gallaudet College for the Deaf in Washington and the American Printing House for the Blind in Lexington, Kentucky, was about the extent of it. By 1974, the Office of Education alone was providing approximately $300 million to support education for handicapped children. Some $190 million went to the states under the Education for the Handicapped Act, the Elementary and Secondary Education Act and the Vocational Education Act. Another $100 million was made available for model program development in such areas as early childhood education, special programming for children with learning disabilities, development of new teaching methods, research and demonstration projects and support to more than 300 colleges and universities for teacher training. There were about 240,000 specially qualified teachers of the handicapped in 1974. That number will have to be doubled if every handicapped child is to receive the opportunity he deserves. In order to encourage a growing number of highly motivated and compassionate young people who want to teach handicapped children, the USOE supports a number of teacher-training institutions which give direct financial aid to students. Some regular teachers are being re-trained with federal grants as teachers of the handicapped.

The Office of Education's Bureau of Education for the Handicapped (BEH) conducts varied programs as part of the federal effort. These include research and development of improved curricula for mentally retarded children, demonstration projects designed to enrich the educational experience of handicapped children, aid in setting up centers around the country to stimulate services for more than 5,000 deaf-blind children, training and supportive services to parents and teachers and a range of educational services to children. The Bureau also supports model programs working directly with children, "outreach" projects providing technical assistance, public information and legislative planning assistance. Methods of screening pre-school children to see whether they need special services are now receiving priority attention by the Bureau.

In addition, the Office of Child Development, now a part of the U.S. Department of Health, Education and Welfare but not of the U.S. Office of Education, devoted an estimated $30 million in Headstart funds in 1974 to fulfilling a legal requirement that 10 percent of the children served in Headstart programs be handicapped.

Role of Vocational Education

Most states today mandate education for handicapped children. This includes a wide range of services, including vocational education. It cannot and should not be separated entirely from the total educational system and is influenced by many forces at work at all levels of government involving public acceptance and attitudes as well as funding. Nevertheless, there has been a growing commitment in vocational education to meeting the special needs of the handicapped in recent years.

The Vocational Education Act of 1963 provided for vocational education "for persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular programs of vocational education." Only a few states responded to the opportunities offered by that law by initiating pilot programs for vocational education for people with physical or mental handicaps. The Vocational Education Amendments of 1968 (PL 90-567) were therefore written with a view to emphasizing the importance of making high quality vocational education accessible to the handicapped. Implicit in that Act was a shift in priorities to the "needs of the student" and not the pre-determined structure of a certain course or program. This was intended to provide for changes within the vocational structure to accommodate "special needs" students. The 1968 Amendments further re-directed the emphasis in vocational education by earmarking money. Programs for the handicapped were identified as one of the categories for which the states had to set aside a certain percent of the federal monies spent. The 10 percent set-aside for the handicapped was to be used only for the incremental costs of providing vocational education to the handicapped.

By fiscal year 1972, three years after initiation of vocational education programs and services for the handicapped under the 1968 Amendments, reports showed that all states had designated at least one person on a state staff to assume major responsibility for planning, supervising and monitoring vocational programs for this group. All states had initiated programs for identifying the handicapped population as well as their needs and the resources and techniques for meeting those needs. An increasing number of handicapped persons were receiving special services to enable them to succeed in a vocational education program. In other words, there was significant forward movement. A good beginning had been made toward improving existing programs and initiating new ones. There was a general recognition, however, that much more had to be done to achieve a national goal of vocational education programs at all levels for all categories of handicapped by the end of this decade.

Survey and On-Site Study

As the U.S. Office of Education probed more deeply into the condition of the handicapped it became apparent that even those young people who were receiving some vocational services were not being adequately prepared for life after school. Often they had acquired no saleable skills. The semi-academic training many received did not give them vocational skills that were attractive to an employer.

There were good programs around the county, however, and there have been positive responses to federal stimulus. The Bureau of Education for the Handicapped decided that it would be useful to identify proven educational techniques and make them more widely known. In order to stimulate new programs and provide a basis for improving existing programs, the Bureau contracted with Management Analysis Center, Inc. (MAC) to make a study of three types of existing vocational education programs for the handicapped. They were to include regular vocational education programs modified to serve handicapped students in the regular classroom, special vocational education programs for the handicapped in segregated classrooms and special vocational programs for severely handicapped students in special classes or residential schools. The first two types of programs are directed toward full-time employment for the handicapped student in a normal, integrated work environment. The third type is directed toward reducing the level of student dependency but not necssarily full-time employment in the normal work world. In each case, however, it was the Bureau's intent to define alternative educational settings which allowed each handicapped student to function in his or her least restrictive environment.

Actually, the scope of the programs studied and discussed in this manual go beyond "vocational education" in the narrow sense of the term. Vocational education implies skills training with a trade orientation and the term career education encompasses virtually all student needs beginning in primary school and continuing through post-secondary levels. Occupational education appeared to be an appropriate term to describe the breadth of pre-vocational and vocational training required for handicapped students to achieve their potential whether in competitive employment or a sheltered environment.

The Vocational Education Amendments of 1968 make a distinction between students unable to succeed in vocational education programs for socio-economic reasons and those whose inability to succeed stemmed from physical, mental or emotional handicaps. The first were identified as disadvantaged, the second as handicapped. The MAC study covered handicapped persons in the latter category -- the mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotional disturbed, crippled or otherwise health impaired.

The first step taken by MAC researchers was to identify existing programs considered effective by persons or groups concerned with vocational education to the handicapped. Sifting and analysis of a large sample resulted in selection of a smaller set of programs to be used as the basis for drawing conclusions designed to stimulate discussion and improvement of occupational education for the handicapped generally.

A team of consultants was formed and a letter sent to a large number of individuals and organizations seeking nominations of effective programs for a survey and subsequent in-depth study. The nominating group consisted of: (1) all state directors of special education, vocational education, vocational rehabilitation and mental health; (2) various private organizations, interest groups and individual professionals suggested by the consultants, the U.S. Office of Education and an Advisory Board which helped in all stages of the project. That Board was composed of fifteen eminent educators and topical advisors.

As a result of the initial letter, approximately 450 programs were nominated as worthy of special study. A questionnaire designed to elicit comprehensive descriptive information from the program director or principal was drawn up and sent to each nominated program. Completed questionnaires were returned by 330 programs, a response of 73 percent. This information was used as the basis for selecting thirty programs for on-site visits.

The thirty were chosen by relating the responses of individual questions to three major questions about each program in comparison to others. The questions were:

1. How effective is the program in reducing the level of dependency of its handicapped students in comparison with other programs of the same type?

2. How comprehensive is the range of services and education offered by the program in comparison with other programs of the same type?

3. How replicable is the program for other geographic areas of other handicapping conditions in comparison to other programs of the same type?

The selection of thirty outstanding programs proved difficult. Many met the basic criteria but had to be rejected for other reasons. Some were excluded because they did not contribute to the balanced geographic and demographic distribution desired. Another objection to some programs was that they could not be sufficiently replicable because of unusually generous financial support or dependence on unique local circumstances. Others were rejected because they were post-secondary or adult programs. MAC had been charged with concentrating on programs primarily serving the 0-21 age group.

Appendix D explains the MAC study in more detail including the rationale for deviating from the original design for the manual which was found to be artifically restrictive.

Strengths and Weaknesses of the System

While good individual programs do exist, the MAC research team found that vocational services for the handicapped are generally weak. For example, they often fail to provide adequate solutions to the familiar problems of labeling and consigning the handicapped to certain menial types of training based on a too low achievement expectation. There is a lack of funds, good facilities, equipment and suitable teaching materials, but more important, too few instructors effectively serving this population. Coordination of efforts among the different agencies responsible for providing services is poor. Supervision and monitoring of student progress is not adequate. The pervasive and continuing sexual stereotyping found in American education generally has been perpetuated in vocational education and education for the handicapped. Girls are trained for homemaking and domestic roles. Boys are given the traditional kinds of vocational training -- only "watered down" to fit their level of intelligence or physical handicap. Educators of the handicapped, along with all other educators, have a responsibility for opening up their courses to both sexes and broadening occupational choices for girls. In other words, we have a system out of balance.

Beyond these general observations, the MAC study revealed that the gap between existing and desired situations was not primarily attributable to a lack of quality in vocational or occupational curricula but to certain common failings of many programs. The unsuccessful programs fail in three basic ways. They fail to prepare the environment for the student as well as they prepare the student for the work environment. Secondly, they fail to take advantage of or solicit assistance from services or groups outside the immediate administration of the program. Thirdly, they do not ensure the relevance of program content to the job market and environment in which students will live when they graduate. The most effective, comprehensive and replicable programs did not fail in these ways. In addition, they provided services at a cost per student realistic by the standards of most school districts. Where good programs were found, they reflected strong local commitment. The effective ones were also characterized by cooperation among agencies of government and interested groups and individuals.

Stated another way, the MAC team concluded that handicapped students should be brought closer to the society in which they will ultimately live and work. They must be introduced to the social aspects of a work environment and to the probable need for mobility in jobs as the job market changes. Problems of underemployment and unemployment should not be ignored. A broad range of services is needed to fill the needs of handicapped students provided by the cooperative efforts of public and private groups outside the immediate program staff. The curriculum must be flexible and tailored to individual needs. In starting new programs and modifying existing programs, these points should all be taken into account. They will be discussed in detail in the following chapters.

CHAPTER 1

LAYING THE GROUNDWORK

There are many tasks involved in starting a new program of occupational education for the handicapped. Many techniques can be brought to the problem. They apply equally to the improvement of existing programs. It should be recognized from the beginning, however, that development of more effective delivery systems of occupational education for the handicapped involves a deliberate and planned process of implementing change. Based on a distillation of the best proven practice found around the country, this manual attempts to provide a practical guide to action.

The problem must be defined before a program can be designed. Deciding on a program without having properly defined the problem is a disservice to the handicapped because it may result in a waste of scarce and valuable resources. For example, it makes little sense to expend a major portion of discretionary resources on establishing a post-secondary occupational program if the real problem is lack of socio-economic preparation of students during their 13 years of elementary and secondary education. Major expenditures should be directed toward eliminating the source of the problem, not its symptoms. Defining the problem involves first an assessment of the needs of a particular group. Needs assessment, surprisingly, was a striking area of weakness in many programs studied.

Looking at the Target Group

The target group must be clearly identified. That is an important, if obvious, first step. It is more difficult than it sounds. Many handicapped individuals have never been properly tested. If tested, many have never been placed in appropriate programs because the programs did not exist. Others are in institutions. No overall national system has been developed for identifying and locating the number of persons in each category of handicapping conditions.

In pinpointing a target group locally, several questions should be asked. Who needs occupational education and is not receiving it now? How many persons are there in this group? Where are they located? Environmental factors surrounding the target group must also be taken into account. What are the geographic conditions of the locality to be served? What are the demographic characteristics of the community and the handicapped population? What is the local employment situation?

There are various ways of gathering this information. A good starting point is to get in touch with the State Coordinator for Vocational Education for the Handicapped to obtain information on resources and any relevant legal or regulatory constraints or labor restrictions. While the State Coordinator will not be able to answer all questions or do all the necessary research, he will be able to point to other sources of information and assistance, thereby reducing duplication of effort. Surveys designed to obtain needed information can be conducted by means of mailed questionnaires, interviews and telephone queries directed to all possible sources of information.

The Maryland School for the Blind in Baltimore, Maryland, conducted a job survey as part of its needs assessment effort prior to initiating a vocational program for its students. The purpose of the survey was to inquire into available opportunities for employment. With a grant from the Maryland State Department of Education, the School for the Blind conducted a job and student survey in 1972. An advisory committee was formed to oversee the process and make recommendations for further action based on findings. The advisory group was composed of representatives from industry, state agencies, the School for the Blind, the Maryland Workshop for the Blind, the University of Maryland and consultants. A questionnaire was mailed to 2,000 employers in the state as well as former students of the School for the Blind with a view to locating occupational opportunities for the visually impaired as well as gaining information on the students' current employment status and opinions of the School and its program. The survey disclosed that one-third of the former students had gone on to further study on a full-time basis, one-third were gainfully employed and one-third were unemployed.

Statement of Goals

The second step in needs assessment requires a written statement of those needs in terms of measurable objectives. The special needs program of the Calhoun Area Vocational Center in Battle Creek, Michigan, stated its primary goal as follows: "The overall goal of the special needs program as stated in the project proposal is to enable mentally and physically handicapped students to obtain basic vocational skills and to develop abilities and interests within the limits of the handicapped student's physical and mental capabilities, which are meaningful and realistic relative to being a contributory citizen and member of the work force."

For operational purposes, such goals have to be translated into measurable objectives. One such objective, for example, would be the placing of 85 percent of all students in the target group in competitive employment at the highest skill level possible. Whatever the objective, it must be feasible. It must indicate that the program has had a definite impact on reducing the severity of the problem by fulfilling the needs of the target group served.

Self-Evaluation

In cases where improvement of an existing program is being considered, the same kinds of information must be asked about the target group. Has the target group been defined? How many persons are presently or potentially eligible? How many become eligible each year? What percentage of those eligible each year is considered for admission? What percentage of referrals is admitted? What happens to those persons who are eligible for the program but not admitted? Are they adequately served elsewhere? Is there anything that can be done to assure that they are receiving adequate service?

In addition to information on the target group, administrators will want to look at their systems of service, what the program is accomplishing and at what cost. A key question is: "What percentage of students are successfully placed?" The degree of success in placing students is obviously related to the degree and kind of handicap, the economic situation of the community and the expectations of the students. For example, expectations for an intelligent deaf student in an economically prosperous community with low unemployment would be higher than those for a deaf student living in a depressed area. Three criteria for determining succesful placement include the relationship between the job and the training received, wages received and length and record of employment.

Criteria and checklists have been developed for program evaluation covering many aspects of the problem. One such checklist may be found in Appendix A.

CHAPTER 2

DESIGNING A PROGRAM

Having defined the problem and assessed the needs of a particular target group, the next step is to design a program to meet those needs. There is no simple answer to achieving the best mix of services. Options in setting up a program range from relatively inexpensive, simple work-study programs to more sophisticated, more expensive, skill training programs. Selection among alternatives will be determined by needs and by the availability of monetary and other resources. All resources should be used, however, to achieve definite program goals.

A program plan should be drawn up that will assure effective organization, allocation and management of resources. It should present an integrated set of educational elements to serve students as well as to attract additional resources to the effort. An initial plan may be prepared in the form of a proposal for development funds to local, state or federal funding agencies or to special interest groups. Special development funds reduce the need to draw on limited sources of permanent funding.

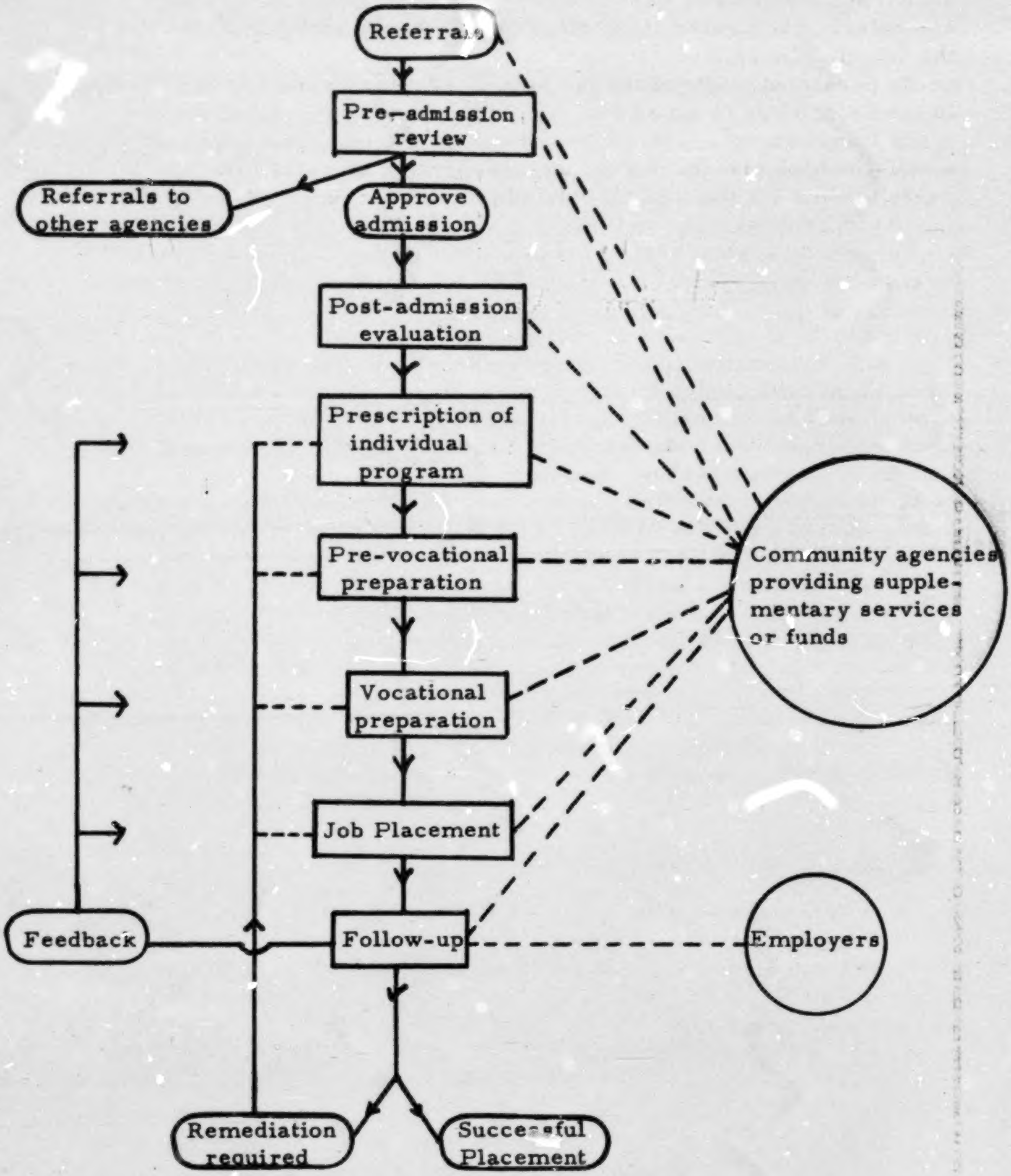
Specific elements of an overall program plan are discussed in succeeding chapters, but a generalized example of a plan in flowchart form will help visualize the relationships of the various program service elements. The flowchart or diagram in Exhibit 1 shows the flow of events, providers and results. Events are shown in rectangular boxes, providers in circles and results in ovals. The exhibit is comprehensive, although summarized in its display of the full span of activities from the identification of eligible students in need of service to feedback after follow-up of job placements.

Planning as a Continuous Process

Program planning should be viewed as a dynamic process of change and improvement rather than as a static product of program initiation. The experience of the special needs program of the Calhoun Area Vocational Center in Battle Creek, Michigan, demonstrates how an initial proposal to introduce a program for the handicapped in an existing vocational school may provide the funding for an annual process of program development and improvement. In the school year 1971-72, a proposal

Exhibit 1

GENERALIZED FLOW-CHART OF A VOCATIONAL PROGRAM FOR THE HANDICAPPED



Referrals
Pre-admission review
Referrals to other agencies
Approve admission
Post-admission evaluation
Prescription of individual program
Pre-vocational preparation
Vocational preparation
Job Placement
Follow-up
Feedback
Remediation required
Successful Placement
Community agencies providing supplementary services or funds
Employers

was submitted to the Vocational Education and Career Development Services Division of the Michigan Department of Education to establish a special needs program for mentally and physically handicapped students. The project was accepted and begun during the second semester. The Center staff integrated the handicapped students from the outset. These students were provided support services by special needs personnel. One of the two special education consultants working in the Center was hired as a curriculum resource consultant for the special needs team. The project also funded a half-time administrator, a half-time job placement position and clerical support. The special needs project for the mentally and physically handicapped continued for the full school year in 1972-73. The Intermediate School District added another special education consultant during the year bringing the total to three.

For the 1973-74 school year, the special needs project was expanded to include responsibility for the special needs program at the Branch Area Vocational Center located approximately thirty miles away. The project staff for the handicapped was expanded to include a project coordinator and two consultants for the handicapped (one for each center). A resource room teacher for tutorial assistance for handicapped students was also added; the teacher was hired by the Battle Creek School District and was partially reimbursed by the Intermediate School District. It is important to note that the initial program plan in the proposal was merely viewed as a beginning.

Supplementing Funds and Other Resources

The availability of funds is often a major constraint facing a group attempting to establish a new program. But many of the programs mentioned in this volume were able to overcome limitations by supplementing them from outside local sources and state or federal grants. Depending on the state, there may be other sources available than those below. The following list includes the major sources of financial assistance.

- Local private, business or non-profit groups
- State funds for Vocational Education or Special Education reimbursements
- State planning or demonstration grants (normally administered through the Department of Education)

- Federal funds allocations to the states for planning or demonstration project grants from:

  - 1968 Amendments to the Vocational Education Act (Part B set-asides for handicapped and disadvantaged)
  - Vocational Rehabilitation Act
  - Elementary and Secondary Education Act (various titles)
  - Developmental Disabilities Act

- Federal grants directly from federal agencies such as:

  - Bureau of Education for the Handicapped and Bureau of Occupational and Adult Education, U.S. Office of Education
  - Social and Rehabilitation Service
  - Rehabilitation Services Administration

Money is not, of course, the only form of assistance. Many programs receive services, facilities and equipment from outside groups or agencies that allow the use of money that would have been used to purchase these services or items to be diverted to other program purposes. It may also be more efficient to contract for or purchase services such as vocational testing from outside agencies rather than attempting to provide them.

Active solicitation of support and assistance from parents and other groups interested in meeting the needs of the target group can produce many sources of assistance which can be woven into an overall scheme for delivering comprehensive services. Cooperative efforts can reduce the drain on program resources and increase community awareness -- a situation that almost inevitably increases occupational opportunities for the handicapped. All possible sources of help should be thoroughly investigated before designing a program. The Employment Orientation program of Sicklerville, New Jersey, has continuing support from many groups listed in Exhibit 2. The Sicklerville experience indicates that initial requests for assistance during the identification of alternatives may even result in actual services that can be utilized when the program begins operation. The brief descriptions of the programs in Appendix B should provide useful examples of how the fiscal and physical

Exhibit 2

NAME	NATURE OF INVOLVEMENT	TYPE OF ORGANIZATION
New Jersey Rehabilitation Commission	Reference Services	State
Bancroft School	Post Secondary Evaluation, Training & Placement	Private
Abilities Center	Post Secondary Evaluation, Training & Placement	Private
New Jersey State Employment Division	Job Placement	State
Goodwill Industries	Post Secondary Evaluation, Training & Placement	Private
Archway School	Student-Volunteer Training	Private
Camden County Occupational Training Center	Post Secondary Evaluation, Training & Placement	County
Camden City Vocational & Technical Schools	Work Study on the Campus	Local
Educational Instructional Center	Instructional Materials & Media	State
New Jersey Assn for Retarded Children	Partial Pay Reimbursement to Employers	Private
Camden County Vocational School Advisory Board for the Handicapped	Advisory	Private
Episcopal Child Day Center	Student-Volunteer Training	Private
Society of Plastic Engineers	Donation of Literature and Films	Private
Camden County General Hospital	Rehabilitation	County

resources of the program can be supplemented by outside sources to support a program costing between $1,000 and $3,000 per student year.

Regional Programs

In addition to alternatives provided by parents and outside groups, another major source of program alternatives can be derived from the creation of multi-district or regional programs. The low incidence of handicapped students in many areas and the relatively higher costs of servicing them in comparison with the cost of schooling for non-handicapped children often present serious barriers to development of programs. Many effective programs around the country have been set up a regional basis. Small areas and school districts have pooled their resources to establish a joint occupational education program serving all the handicapped children in the region. Such pooling supplements limited resources.

The Bergen County Vocational School in Paramus, New Jersey is one example of the "regionalization" concept in action. Bergen County, New Jersey, serves both non-handicapped and handicapped students through a "super-district" that provides vocational education to students from over 70 participating school districts. The Bergen County Vocational School District was originally established to offer vocational education to non-handicapped students in a centrally located high school. Students attended from all over Bergen County, an area of 240 square miles.

Parents and several associations interested in furthering education for handicapped children proposed in the late 1960's that this "super-district" for vocational education also be used as a vehicle to provide similar secondary education to handicapped students. The average school district in Bergen County at that time had only 20,000-25,000 total population and only 40 handicapped children of school age (5-20 years old). Given this large number of small school districts, it was unlikely that any but the largest of the 70 districts could do more than provide one classroom and teacher for secondary level handicapped students, hardly a basis for a comprehensive vocational program. In 1968, the "super-district" set up such a program for educable mentally retarded, neurologically impaired and emotionally disturbed students in part of a building purchased and renovated by the district with partial financial assistance from the State of New Jersey. The individual school districts within the county contributed via their normal contributions to the "super-district." Districts sending students also paid an annual tuition of $700 per student plus provision of transportation. It should be noted that the original facility for the program was not new and needed only renovation.

Regionalism and the use of a temporarily vacant grade school were also used in Framingham, Massachusetts, to establish a vocational education program for an even lower incidence population of moderately retarded children. The Keefe School Special Needs Program, as it is now called, began with a federal grant and the donation of a temporarily vacant school building from the city of Framingham. The program began operation in December 1970 with an initial enrollment of 30 moderately retarded (30-65 IQ) students. Students came from several neighboring school districts. After 3½ years at the Lawrence School Center, this program moved into the newly constructed Keefe Vocational Technical High School run by the South Middlesex Regional School District. Through the efforts of the program's first director, his successor and the Superintendent of the South Middlesex School District, a special 6,000 square-foot area was allocated to the special needs program when the new high school was planned. Movement into the regional Vocational Technical School has allowed the program to expand its range of services as well as its student enrollment. Enrollment is expected to increase to 100-135 students. The expanded program will provide services for several groups: hearing, visually, and speech impaired; the emotionally disturbed; the physically handicapped; and the mentally retarded in the moderate to borderline range. The program has also become part of the total special needs department of the Vocational Technical School and, as such, will now receive its funding primarily from the South Middlesex Regional School District, supplemented by tuition from cooperating school districts. The program has moved from 100% federal funding to almost total funding from local sources.

Intermediate "regional"-type educational authorities linking the state and local levels in several states such as Intermediate Units in Pennsylvania, Boards of Cooperative Educational Services in New York, and Educational Service Units in Nebraska, have often provided the mechanism for establishing occupational education services to low-incidence handicapped populations. The range of alternatives available is often much broader than at first imagined. Identification of alternatives should include at least a regional view of the problem, a search for currently unused or unwanted facilities, an outreach to potential cooperating groups for assistance and discussions with existing vocational-technical schools serving non-handicapped students.

CHAPTER 3

SETTING UP THE PROGRAM

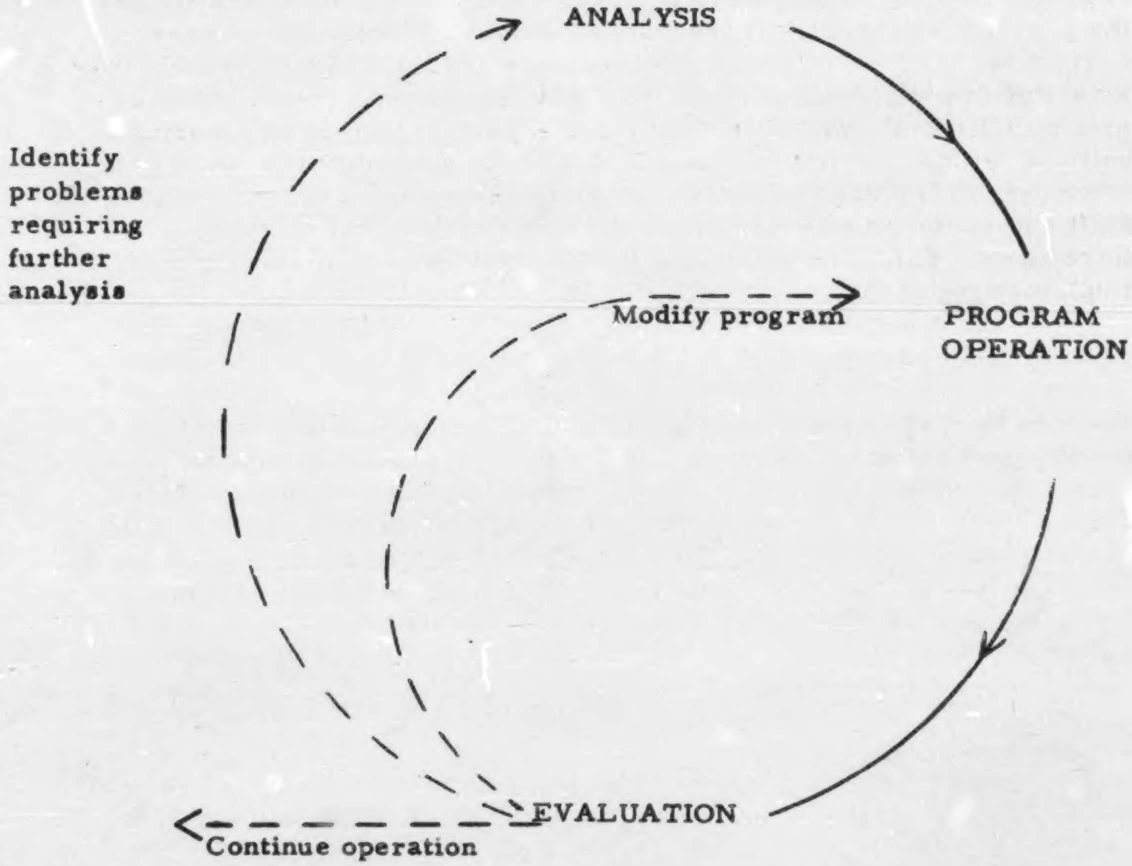
If the design of a program plan is a dynamic process, implementation of the plan is even more dynamic. Change and constant improvement are common denominators of every successful program identified during the national survey on which this manual based. Implementation is not merely the setting up of a program. Efforts to build support for the program and to attract resources must be a continuous process. Cultivation of close relations with business and the community and the selection of program staff, particularly a competent administrator as program director, are two of the most important factors in ensuring a built-in process of improvement. One of the most difficult tasks in a changing program is to maintain operational control of the program staff and elements without stifling the beneficial effects of changes introduced. Exhibit 3 illustrates the dynamic nature of planning and implementing change.

Catalysts for Change

Awareness of the need for change often originates with parents of handicapped children. Parents have been both a catalyst for change and a source of strong support for improvement of education for the handicapped. Pressure exerted by parents, for instance, eventually resulted in the construction and operation of the Roanoke County Occupational School in Salem, Virginia. Parents in the county were actually the initiators of change when they requested the Assistant Superintendent of Roanoke County Schools to investigate how many handicapped children were not being served by his own schools. At their suggestion, the assistant superintendent polled his school principals and discovered a handicapped population four to five times larger than the number of students being served. This discovery prompted him to work for change. The parents made demands to the School Board for more classes for the handicapped, an improved testing system, higher educational goals for the mentally retarded, a common county-wide supervisor of handicapped programs and transportation for all special education students to appropriate programs. Their persistence eventually resulted in a secondary level vocational program.

Exhibit 3

PLANNING AND IMPLEMENTING CHANGE



Generating community interest in developing an occupational education program for handicapped students is often a time-consuming, frustrating task that requires the persistent efforts of at least one or two dedicated individuals willing to devote a great deal of time to overcoming passive attitudes in the community. Outside groups can also bring pressure which leads to change. West Springfield, Massachusetts, public schools were able to attract and maintain a relatively high level of community pressure for change primarily through the visible use of a multi-interest advisory committee. The favorable public relations growing out of this involvement helped West Springfield obtain initial project funding for its Human Development Program. It also proved helpful in generating support for continued local funding when the project grant expired three years later. From the beginning of the development effort, West Springfield public schools personnel solicited the involvement of outside organizations. A joint planning committee reviewed the original study to lay plans for the program. That group gradually grew into a full-fledged advisory committee. The original group included representatives from the state departments of vocational rehabilitation, special education and a local college. In conjunction with the West Springfield School Committee, interest groups at both the local and state levels were approached for assistance. The advisory committee for the original project grant awarded by Vocational Rehabilitation Services ultimately included representatives from: Springfield College, Roman Catholic Diocese of Springfield, the Council of Churches of Greater Springfield, the regional representative of the state Bureau of Special Education, the district supervisor of the Massachusetts Rehabilitation Commission, a director of the local Association for Retarded Children, the president of the West Springfield Education Association and a representative of the neighboring school district. The interest of the committee members and community groups not included on the committee was maintained at a high level by keeping them informed of what was going on and asking for their comments at different stages.

Program Staff

Of all the resources used by a program, none is more important than the staff personnel. The quality of the staff often determines whether a program will achieve the objectives it has set. Ensuring the hiring and maintenance of an effective program staff is probably the most important task of the program director. The role of the program director or manager is to achieve the stated program goals and objectives with the most efficient use of the resources under his control. The "manager" of an occupational program for the handicapped might be given various titles such as director, supervisor, administrator or coordinator. But the most effective program director is a manager-educator rather than an educator-manager.

The Director of the Vocational Individual Assistance Program in Eastlake, Ohio, uses the following techniques in attracting, interviewing, and hiring capable staff personnel. The director uses two basic sources for locating potential staff. Every state college in Ohio and in many other states maintains a list of persons certified to teach vocational education to the handicapped. This list often contains information indicating their backgrounds, education, and experience. The director also seeks candidates for positions through contacts with industries in the community. Candidates identified are called or written and informed that the director is interested in having them visit the program to discuss employment. Because most, if not all, of these people are employed, the meetings are generally held on weekends or in the evening. During the initial interview, the director is looking for specific characteristics and abilities. The person must set a standard for the students in appearance and make proper use of the English Language. Questions asked include these: Are they engaged in activities besides teaching? Do they appear to be well-rounded? Has the person participated in activities with student or youth groups? Does the candidate know the field and is he able to transfer this knowledge to others? Is the person adaptive and willing to work within a system subject to change? In the course of an interview, the director will often present a hypothetical case such as an in-class behavorial crisis, to see how the potential staff members would handle the situation. Candidates are also asked to assess themselves, focusing on their strengths and weaknesses. If the director feels at this point that he may wish to offer the person a position, other staff members are requested to talk with that person to obtain their impression of the candidate. The director is also looking for some indication of how the candidate would fit in with the rest of the staff. If the staff is agreeable and believes that the person would add to the program, the director then contacts the superintendent of schools so that a formal offer may be made. The last item is also indicative of the participative decision-making process used by the program director.

Managing personnel resources does not end with the hiring of capable staff, however, as the Bergen County Vocational School example demonstrates.

> Recruiting: This may be separated into three sub-tasks: finding qualified people; screening and selecting among those identified; and attracting those people selected. The second and third may often overlap.

1. Finding: Academic teachers are usually easy to locate through newspaper advertisements, queries of the area's teacher colleges, or word-of-mouth inquiries. Qualified vocational teachers are much more difficult to locate. The best are usually found in industry or business through inquiries to present vocational instructors, visits to local employers or any of the methods previously mentioned. The greatest effort should be made toward finding an experienced trades person interested in teaching rather than the reverse.

2. Selection: In addition to the person's being qualified vocationally or academically, or both, the most important characteristics are that the person be able to work well with the handicapped students, have realistic expectations about their abilities and be personable.

3. Attraction: Three important factors in attracting people to the school have been that (a) the work is less demanding than industry in terms of hours/day and number of days, (b) trades persons are often offered their first opportunity to attend college courses, and (c) the pay scale is not so disparate from industry as to prohibit an interested person from switching to teaching.

Maintenance: Once recruited, the principal ensures the maintenance of an effective staff by:

1. Orientation: Each new teacher works with a teacher having similar duties in the school or a companion school and with the academic or vocational teachers with whom they will be working.

2. Communication: In addition to a continuous "open-door" policy toward his teachers, the principal holds a faculty meeting every week to discuss supervisory communications, student problems, future events and emergencies.

3. Evaluation: To provide teachers with performance feedback and the principal with a periodic assessment, he conducts an evaluation of each teacher at least semi-annually. This is shown to the teacher.

4. Training: Many instructors are able to take additional subsidized training if they desire.

Maintenance of a qualified staff also requires continued development, often through in-service training. The Employment Orientation program of Sicklerville, New Jersey encourages further education for regular vocational teachers who have handicapped students in their classes. In-service training is provided to regular vocational education teachers on how to teach special needs students. A federal grant was obtained under the Educational Profession Development Act to provide three seminars in special needs vocational technical education. These seminars are conducted by staff from Glassboro State College on the Camden campus. There are also on-going classes on special needs teaching held one day per week (for two hours) on the Camden campus. These classes are also taught by Glassboro staff and the teachers receive college credits for the classes. Topics include: curriculum development, teaching techniques, role of child study team and introduction to the exceptional child.

Finally, managing personnel resources requires that periodic evaluations of the staff be performed to identify areas for improvement as well as areas where staff members should be commended. Constructive feedback on performance is important to the staff member as well as to the program. The Special Needs Program of the Calhoun Area Vocational Center in Battle Creek, Michigan, sets performance objectives which are reviewed in periodic evaluations conducted by the program director. Special needs team members' job functions are described in performance and process objectives. The performance objectives are developed jointly by the special needs director and team members. Staff members are evaluated by the special needs director on how well they fulfill their objectives. Exhibit 9, Appendix C, provides a sample staff evaluation. The performance evaluation is discussed with the team members to provide feedback on past performance and direction of future efforts. The performance evaluation report also requires the team member to identify what his activities and priorities are for the following five months.

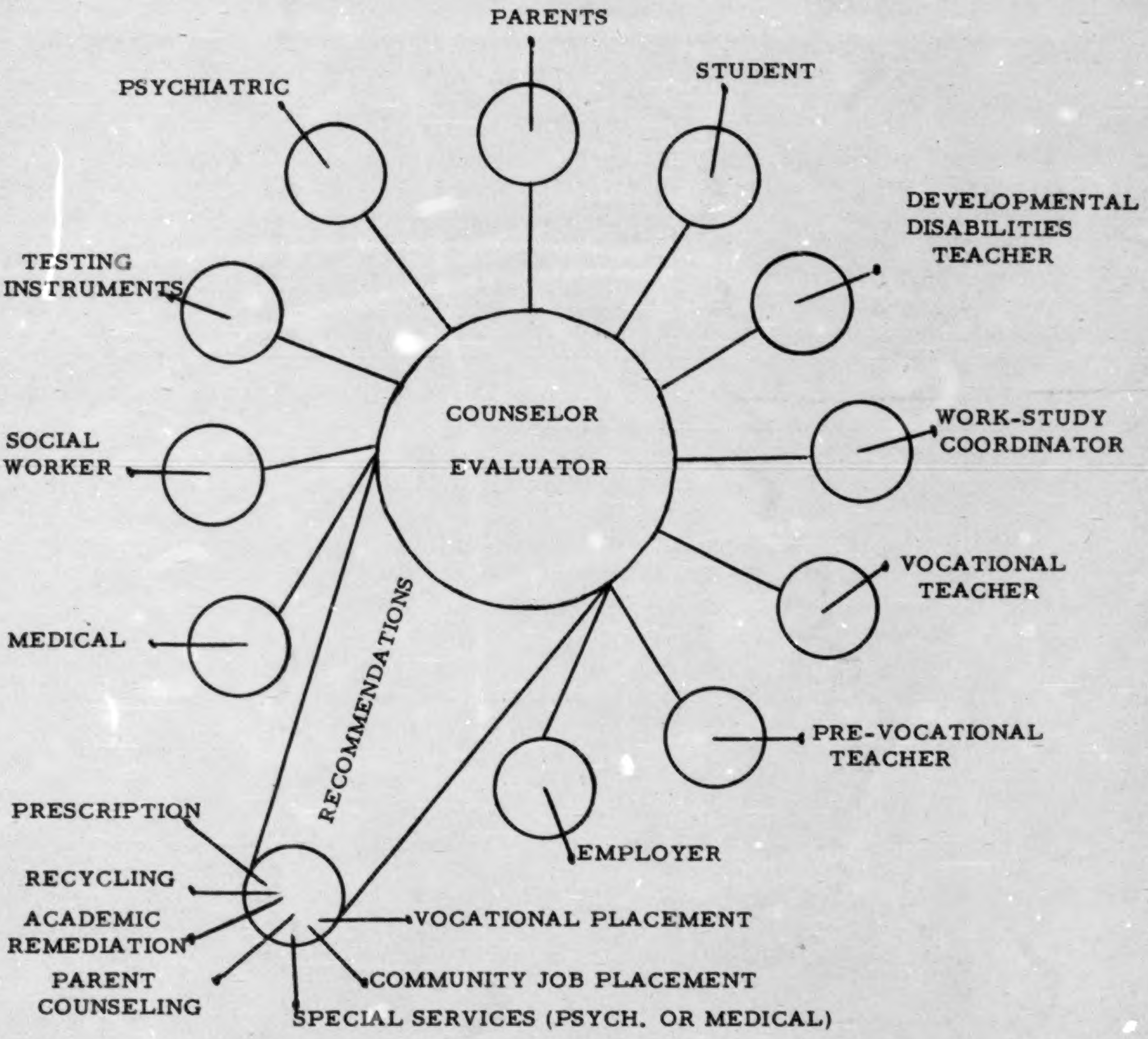
Operational Control

Management of daily operations of the program personnel and the students is an important area of program management because the close coordination of services ensures that students will continue to receive the individualized services most appropriate to their needs. This coordinative role may be performed by anyone on the program's staff but in every effective program the role was the clearly defined responsibility of one or more persons.

In the New Opportunities for Work program in Findlay, Ohio, the counselor-evaluator is the person responsible. The counselor-evaluator acts as the "hub" of the operating control system, through involvement in the evaluation, prescription, placement, and counseling process (Exhibit 4). The position also serves as the interface and transfer agent between any break points in the system. The counselor-evaluator is involved in all transfers into the program and between program elements such as the transfer of a student from pre-vocational to vocational training and in the transfer from vocational training to the work-study phase. The counselor-evaluator also keeps the master file for all students in the program. A daily memo goes to all staff members to communicate to the staff the events of the day -- staffings, prescription meetings, and absences and other newsworthy items.

The Cooperative School Rehabilitation Center in Minnetonka, Minnesota monitors and, if necessary, changes a student's programming on a computer-based student scheduling system. The initial and continuing scheduling of students is done by use of a computer. Student schedules are constantly modified to accomplish specific goals. Students are initially scheduled across program options according to their functional ability in each program area. The schedule printout is transferred to standard $8\frac{1}{2}$" x 11" sized paper for more convenient use by the staff. In this form, student names are listed in the extreme left column and the next six column headings represent the six class periods in the day. The trainee's case manager is listed in the eighth or extreme right-hand column. In the matrix formed, the classes scheduled for each trainee are represented by abbreviations, along with information on whether the class is being held in the main building, the annex or off-campus. Typically 35-45 program changes are scheduled each week. This usually means that one in every eight trainees has his or her schedule changed each week (total enrollment 350). Since there are at present 26 classes or activities offered, each of the 27 teachers probably accepts (or loses) a trainee each week. Changes may be generated by either the teaching staff or case manager. Suggested modifications are submitted through the case manager and that person presents the proposed changes to the entire staff at a scheduling meeting. Conflicts in scheduling are then worked out by mutual agreements of the staff members concerned. Each Monday, each teacher receives a printout of students who should appear for each hour of the day. The class from which the student will come and the class to which the student will go are also shown; this allows control over a large number of less able retarded students moving among classes into two buildings. It also allows rapid identification of the proper case manager to contact in the event of a difficult incident situation. The

Exhibit 4


PARENTS
STUDENT
PSYCHIATRIC
DEVELOPMENTAL DISABILITIES TEACHER
TESTING INSTRUMENTS
COUNSELOR EVALUATOR
WORK-STUDY COORDINATOR
SOCIAL WORKER
VOCATIONAL TEACHER
MEDICAL
RECOMMENDATIONS
PRE-VOCATIONAL TEACHER
EMPLOYER
PRESCRIPTION
RECYCLING
ACADEMIC REMEDIATION
PARENT COUNSELING
VOCATIONAL PLACEMENT
COMMUNITY JOB PLACEMENT
SPECIAL SERVICES (PSYCH. OR MEDICAL)

volume of information and change is too great for conventional clerical management, and the use of a computer terminal on site permits rapid implementation of individual schedule changes. Although this operational control system is clearly more sophisticated than necessary for most programs, the basic concept of ensuring appropriate, up-to-date services for students is valid anywhere.

Record Keeping

Closely related to operational control is the maintenance of a central source of information on each student that interested program staff can refer to easily. Without easy access to student records, the best operational control methods are frustrated. The Human Development Program in West Springfield, Massachusetts, uses a simple but efficient cataloguing technique for student records. Student records for all enrollees are arranged in a uniform system within an individual folder maintained for each student. Each folder contains a standard index of items to be found within and the order in which they may be found. Standard forms and diagnostic/evaluative information are kept on the inside left while non-standard personal information including the results of teacher evaluations and staffing conferences are kept on the inside right.

Although the student record-keeping arrangement outlined below may appear routine, it is an often overlooked item in program management resulting in many lost staff hours.

Each folder contains the following information with tabs for each major section indicated below:

Left Side

Index

Medical 1
- Audiological
- Ophthalmological
- Physicians
- Speech

Psychological-
- Psychiatric 2

SPED* Forms - current . . . 3

Right Side

Personal Data

Social Service 1

Staff Conference 2

Educational Plan. 3

Teacher Evaluations 4
- Classroom
- Counselors
- Reading

---

*SPED is an abreviation for special education

SPED forms - outdated . . . 5

School Records 5

Other info & releases . . . 6

Vocational Counselor . . . 5

Occupational Preparation 6

The special Needs Program of the Calhoun Area Vocational Center in Battle Creek, Michigan, offers another simple, but effective, record-keeping system. All significant activities regarding each handicapped student are recorded in a centralized student card index file. In keeping with the philosophy of a rapid and free flow of information, the file is maintained in a central location and is shared by the special needs staff, vocational rehabilitation counselors and special education consultants. Everyone involved with a student is required to make an entry when there is some change in student status, service performed or anything else significant. The cards are maintained for students for three years after graduation to record follow-up information.

Program Evaluation

Most program administrators admit that the day-to-day concerns of running the program leave little time for considering past results and their implications for future planning. A process of program evaluation, however, will lead to improved services. Program evaluation should include information on past results and on how to improve future services without overburdening daily coordination and operation of the program. Program evaluation should also include a comparison of the existing state of the program with what it should be. The "existing state" implies a knowledge of what the program has accomplished. The "what should be" implies that measurable objectives have been established for the program.

There are four possible ways of describing or setting reference points for comparison. They may be used in combination.

1. Before and after comparisons: How much better are the students doing as a result of the program than similar students were prior to the program's existence?

2. Trends: This approach compares program accomplishments in successive years.

3. Degree to which objectives have been attained: This approach depends on formulation of clear statements of objectives at the outset.

4. Other programs or norms: This approach compares program accomplishments with those of programs serving similar students or with externally constructed standards for the same type of program.

The following example illustrates how a small, semi-rural program in Russellville, Arkansas, the Work-Study Experience Program, recognizes its need for an effective program of periodic evaluation. Several different levels of evaluation are employed with different measures used to determine the results achieved. The different users of the evaluation and the appropriate measures are the Board of Education and school administration, parents, students. The first step is to administer six tests to students to obtain base-line data in the fall of each year. These tests are: Wide Range Achievement Test, Bown's Self-Rating Inventory, Fudell's Test of Occupational Readiness, Parent Rating Scale, Work Adjustment Inventory, Teacher Rating Scale.

At the end of the school year, in May and June, the students are retested by the same measures and rating scales collected. These are compared with the data collected earlier to determine the extent to which the objectives had been achieved for the 15 students in the program.

A more final result-oriented program evaluation is practiced by the Cooperative Vocational Education program in Doylestown, Pennsylvania. Job placement and job maintenance results for the moderately to severely handicapped group it serves are evaluated. The stated measures of program effectiveness are simple and direct. The three stated measures are: (1) percentage of enrolled eligible students trained for and employed on a full-time basis; (2) per student cost of training; and (3) percentage of students returned to the program and re-employed. The first is a measure of immediate success, the second of cost and the third of successful remediation.

Utlimately, the information derived from evaluation must provide the policy changes to incorporate in periodic planning and budgeting. Planing for the next year (or period of operation) brings the process of program management full cycle. Planning and budgeting for change and improvement in all the elements of the program should be, at least, an annual process.

CHAPTER 4

FOCUS ON THE STUDENT

Before handicapped students can enter a program of education and training, three major steps must be taken. Program directors should make sure that they are locating and reviewing all the students who might benefit. They should make sure that each individual's needs and abilities, regardless of sex, are tested and evaluated prior to making a decision on appropriate placement. Finally, once a student has been admitted to a program, his needs and abilities must be carefully reviewed in order to develop an individual educational plan.

Continual reassessment of the student's needs and capabilities throughout his program career is important, but the initial reviews prior to, and, in some instances, immediately after, entering a program are even more essential to assuring that he will be set on a course which will enable him to achieve maximum potential. A program designed to serve a particular type of handicapped student may not be the best possible program for any and all students in that category. If a decision is made to place a student in a certain vocational program, post-admission vocational evaluation of the student may be required to decide what specific programming or services will best meet his needs and abilities.

Student Referral and Outreach

The process of identifying handicapped individuals, whether or not they are students at present, determines how well the program is serving a particular handicapped group. For example, if the objective of the program is to have 80% of all mentally retarded individuals leaving school competitively employed by the time they reach the age of 21, then the "outreach" task is to identify these individuals 21 years of age and younger. They will not necessarily be in school. Some may be in institutions, at home, in sheltered workshops or elsewhere. Serving the handicapped often requires locating them and determining their present status. "Outreach" is the systematic search for and identification of potential students who may be unaware of or unable to attend a program because they have been placed outside the immediate source of referrals.

The identification process is aided significantly if the program has made an effort to open lines of communication with outside agencies that may identify handicapped persons in the course of their daily business. Such agencies include vocational rehabilitation, welfare, mental health, local associations, or parent groups as well as local schools. In addition to soliciting referrals of potential students from these sources, several programs use a more direct approach through "missionary" work -- visiting schools and other institutions and informing people about the program, its purposes and the type of handicapped individuals who could benefit from the program. The effective program includes a systematic effort of deliberate outreach.

The Employment Orientation program in Sicklerville, New Jersey, uses mobile trailers for outreach combined with vocational evaluation aimed at early identification in the elementary and junior high schools. This is a fairly expensive type of missionary work, but it does increase public awareness of the program leading to better coverage and knowledge of the handicapped population.

The program sends mobile trailers to schools in Camden County for vocational evaluation of students with special needs. The trailers also provide exploration in several work areas. The vocational evaluation is designed to build initial vocational profiles of the students. The unit is equipped with commercially developed programs in ten separate evaluation work stations. The unit stays at a school for four weeks at a time. Students are in the unit for a two-hour period each day. Most students take one or two days to complete each area or about three weeks to complete all 10 vocational areas. During this time, many are exposed to occupational education for the first time. Many demonstrate abilities never previously exposed. At the same time, the program staff gains valuable evaluative information about and an introduction to prospective students. A vocational evaluation report is prepared by the unit vocational teacher for each student and provided to the guidance counselor in the student's schools. The unit also keeps a copy for its records. The vocational teacher provides vocational counseling and holds conferences with the students at least twice during the program. These sessions are often useful to students who have not previously considered an occupationally-oriented, secondary program.

Pre-Admission Review

The next step in the process is to determine what should be done for the handicapped individual who has been referred either directly to the program or to the group responsible for pre-admission review prior to placement in the program or in one of several alternatives. Pre-admission review is the critical point of the intake and referral segment of the program's series of related services and steps. Exhibit 5 shows a general flow of the common steps involved in pre-admission review. Most effective programs use a team approach at intake. These teams are usually multi-disciplinary, being made up of such personnel as psychologists, pupil personnel service staff, counselors, teachers, principals, social workers, learning disabilities specialists, psychiatric interns, nurses, speech therapists and parents. The make-up of the intake teams varies depending on staff resources and in many instances on the nature of the handicapped individual. These teams evaluate, test, interview and coordinate all information about the student in an effort to make a diagnostic study of his abilities and needs so that appropriate decisions can be made.

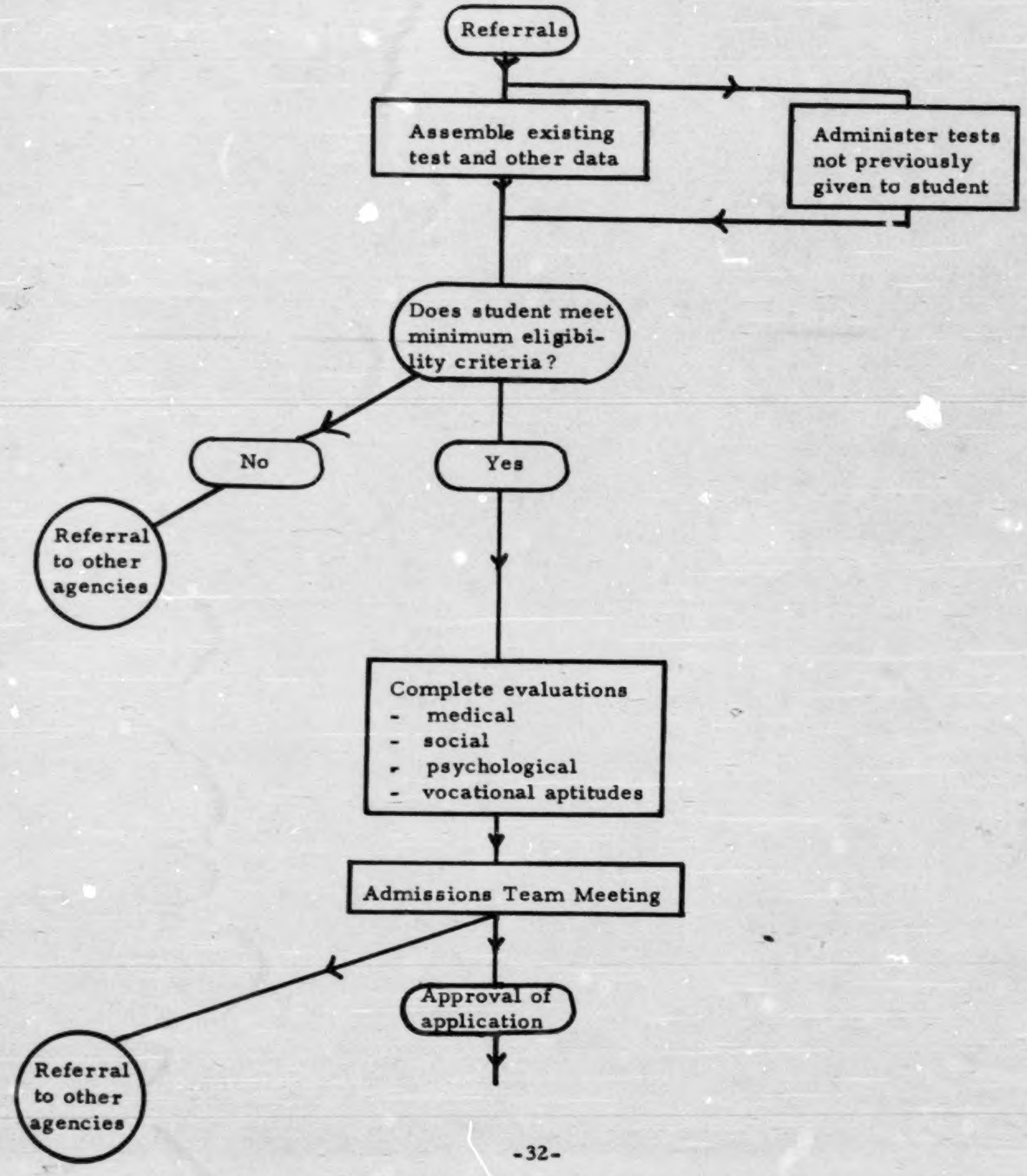
Review teams need certain information in order to make a sound judgment for admission and program recommendations. Information required by the intake staff includes: recent psychological tests, social work-up on family, student's attendance records, learning disabilities specialists' report, health records with a recent medical examination, additional school records, results of tests, comments by principal and teacher's evaluations of reason for referral, evaluation of student's behavior and type of assistance teacher believes is needed by student.

The type of tests administered depend on the perceived needs for information about the student and on the availability of recently administered tests from school or other sources. All of the information listed above is not always available from the referring group, nor is all of it needed. The decision on what information is needed to make a thorough review is the team's responsibility.

The Human Development Porgram of West Springfield, Massachusetts, has a particularly well-documented and well-organized intake and referral process for pre-admission review that includes most of the elements listed above. West Springfield public schools have developed a sequenced process for student referrals and evaluations that incorporates the preparation of a written "educational plan" presented to parents prior tothe student's entrance into the program. This plan must be approved by the parents and updated annually thereafter for approval by the parents. The student evaluation procedure and written educational plan ensure that the student is adequately evaluated and suitably placed in the program to the satisfaction of the parent. At the same time, the procedure provides the program staff with a plan and sufficient diagnostic information to begin to meet the student's individual needs.

Exhibit 5

PRE-ADMISSION REVIEW


Referrals
Assemble existing test and other data
Administer tests not previously given to student
Does student meet minimum eligibility criteria?
No
Yes
Referral to other agencies
Complete evaluations
- medical
- social
- psychological
- vocational aptitudes
Admissions Team Meeting
Approval of application
Referral to other agencies

The individual steps include referral, initiation of student evaluation, parental involvement, diagnostic procedures and evaluations, staff conferences and recommendation and decision.

> Referral -- Referrals may come from a number of sources.
>
> Initiation of Student Evaluation -- All available records on the student are reviewed.
>
> Parental Involvement -- The social worker is responsible for preparing a social history and a statement of parent-child relations.
>
> Diagnostic Procedures and Evaluations -- At this stage, all evaluations and diagnostic procedures are completed.
>
> Staff Conferences -- Conferences are held to review evaluations and prepare an educational plan for the student for whatever program is decided upon. The Human Development Program is one option. This plan must be discussed in a conference with parents prior to a final recommendation.
>
> Recommendation and Decision -- Final recommendations and decision are made by the Superintendent of Schools and the Massachusetts Bureau of Special Education.

The key document in this evaluation process is the educational plan (see Exhibit 6) which assures the parents and the students of an agreed-on program.

The ability of the reviewing team to make a thorough review and an appropriate programming decision is often enhanced by providing for an open forum of members in addition to the permanent members of the team. The Roanoke County Occupational School provides an example of how this open forum approach works.

The pre-admission referral, screening and decision-making process is comprehensive in that it not only provides for medical and psychological examinations of all referred students but also ensures that the decision to place a student in the Roanoke County Occupational School versus alternative programs is made after having received additional input from interested organizations outside the public school system. Any time after a mentally retarded child (student or non-student) reaches 13 years of age, he or she may be referred to a Roanoke County diagnostic team.

Exhibit 6

EDUCATIONAL PLAN

________________ Initiation Date

Name ________________ Date of Birth ________________
School ________________ Grade ________________
Teacher(s): ________________
____

Evaluation Team Members: ________________
____

Student Service Coordinator: ________________

Type: ( ) Fully Integrated ( ) Predominantly Integrated ( ) Partially Integrated

Supplementary Services: ________________
____

Regular Classes and/or Activities			Special Services		
Time	Description	Level	Time	Description	Level

________________ Physician

________________ Student Service Coordinator

________________ Psychologist

________________ Educational Specialist

________________ Date of Conference With Parent

________________ Conference Chairman

APPROVED: ________________ Superintendent of Schools

The team includes two psychologists and the head of pupil personnel services for the county. The psychologists perform other duties as well as this, but they are full-time employees of the school district. Referrals may be made by almost any interested party but most commonly are made by teachers, principals and parents. If the diagnostic team believes that testing is needed, it can be performed only after parental approval has been received. The nature and number of (psychological, medical, psychomotor) tests administered depends on the perceived needs of the student and on the availability of results recently administered by the school or other sources of such mental health services. These test results and the student's records are submitted to a "placement" committee composed of the director of special education (chairman), the principal of the occupational school, the diagnostic team, the unit supervisor of vocational rehabilitation, the assistant superintendent for administration, the school board nurse and the visiting teacher. In addition to these fixed members, ad hoc members may be added for any particular decision. Such outside attendees are welcome and may include representatives from the Departments of Welfare or Health, Mental Health Services, the juvenile courts, the Child Care Bureau, the Crippled Children's Bureau or the parents. Information from and participation by any groups who may contribute to an individual placement decision are encouraged and sought. The desirable result of this relatively open placement decision process is that decisions are made in the interest of the student rather than in the interest of the school system. The committee meeting encourages an open forum on the needs of the student relative to the educational options available to him.

The quality of the reviewing team's programming decision is also often enhanced by vocational evaluations as part of the pre-admission review. The Work Evaluation Center in Clearwater, Florida, reviews students referred to it for vocational placement throughout Pinellas County, Florida. The Work Evaluation Center began with the Testing, Orientation, Work Evaluation in Rehabilitation and Jewish Employment and Vocational Service work sample units to serve handicapped students from exceptional child centers. Later the Singer/Graflex system was added. Students are selected by a committee of school and vocational rehabilitation counselors, teachers and a work evaluation coordinator. Criteria used includes tests, class performance, interest and abilities. The work evaluation coordinator works closely with all concerned (including parents) in the identification and selection of handicapped students and vocational training placement. Tours of vocational training programs and local firms are conducted for exceptional child center students, prior to and during both work evaluation and vocational training. After a two-week work evaluation session ($3\frac{1}{2}$ hours per day) each student is rated on all work evaluation elements. Simulated work samples assess vocational potential, determine assets and liabilities as they relate to vocational goals. Performance is assessed through a variety of tasks, including the personal and social dimensions. The tasks are standardized industrially on both time and quality under the three work evaluation systems. Behaviors significant to work are specified and measured. Recommendations are made based upon these factors. The Work Evaluation Center operation has now been expanded beyond servicing just handicapped students from exceptional child centers. Clients now include: other vocational rehabilitation clients, probation and parole commission clients, both handicapped and non-handicapped adults from other programs, students from junior and senior high schools, clients from other local agencies and such as State Employment Service and Drug Rehabilitation Center. The Work Evaluation Center recently began serving clients in evening programs.

The problems associated with pre-admission review increase in complexity as the number of referral sources increases and, consequently, the number of referrals. The multiplicity of relatively small school districts throughout much of the State of New Jersey has led to the creation of child study teams. The Bergen County Vocational School, for instance, can receive referrals from more than 70 school districts. The large number of participating school districts referring educable mentally retarded, neurologically impaired and emotionally disturbed students to the program dictates the need for an organized screening device preferably at the local district level to make the program readily accessible. In Bergen County, this is performed by a child study team at the local district level. This team is responsible for evaluating the student's abilities and referring him to the appropriate program. The Bergen County Vocational School is just one option. This process ensures that the student is adequately reviewed prior to the time he is referred to any particular program. Each child study team must include as a minimum, a psychologist, a social worker and a learning disabilities specialist. Most of the members of the team are full-time employees who are assigned other duties as well, but the team may include contract or case work members. Almost every school district has its own child study team. The team is responsible for special needs children of all ages whether or not they are eligible for the Bergen County Vocational School.

The process from the time of original referral of a student to the team until the admission decision at Bergen County Vocational School is simple but effective, primarily because the educational review and assessment is the responsibility of the local school district, thereby encouraging evaluation prior to the student's referral to the program. The process includes the following steps:

1. Referral: The student may be referred to the team for evaluation by a teacher, administrator, or parent.

2. Team Review: The team is responsible for ensuring that the review includes a psychological test within the past six months, a social worker's report on the family within the past year, a student's attendance record, a teacher's narrative evaluation, a learning disabilities specialist's report, a health record including a recent medical examination and miscellaneous student records.

On the basis of this information, a decision is made as to where the student should be referred.

1. Application: Assuming the referral is to Bergen County Vocational School, an application to the program is prepared, discussed with, signed by the parents and sent to the school.

2. Interview: The school's guidance counselor interviews the student who is brought to the interview by a member of the child study team, not the parents.

3. Admission Decision: The guidance counselor makes his decision on the basis of the team's review and materials, the student interview and his assessment of the student's long-term employability.

The criteria for admission vary greatly. In one program, all special education seventh graders are automatically enrolled in the vocational program. There is no pre-selection. Another program, which uses the rationale that every child has the right to an education, has a stated policy of zero rejects for admission into the vocational program. This policy states that every student is accepted to the program when referred by a school and that no student is turned down. The policy further states that the school is responsible for developing its program around the needs of the students rather than simply setting up a program and selecting those students who fit it best. Some programs have age criteria for admission and state that seizures must be under medical control; one program rejects any student who has serious physical or emotional disabilities that would jeopardize the safety of other students. In any case, the final admission decision must be made on a student-by-student basis. That is the reason for the thorough pre-admission review done by or for most effective programs.

Post-Admission Evaluation

Depending on whether the program staff itself or an outside review team has performed the pre-admission review, the program may decide that it requires additional evaluative information on the student's needs and capacities before it can construct an educational plan for the student, including an appropriate mix of program services and curricula. Post-admission evaluation is also the first step in a continuous process of monitoring student program and altering his program over time. Consequently, it overlaps with the beginning of his program career.

Laradon Hall in Denver, Colorado, for example, combines its pre-admission review with a second decision point in its intake process. Admission to Laradon Hall is by application and subject to the approval of the admissions committee which reviews the student at two points during the intake process -- first, at the initial entry point, and, second, after an eight-week evaluation period during which the trainee is observed in the residential work shop settings.

Depending on the timing of the pre-admission review and the admission decisions, summer programs prior to the student's actual entry into the formal program often provide useful post-admission evaluation information that can assist program staff in determining the student's programming for the fall. The Employment Orientation in Sicklerville, New Jersey, offers a summer program to most of the students due to enter in the fall for precisely that reason.

The Aux Chandelles program in Elkhart, Indiana, supplements its pre-admission review and selection information with a post-admission vocational evaluation using a device called the work pacer. The device is particularly helpful to the staff in determining programming for a new student because of severity of the handicaps of the students served by Aux Chandelles. It was developed by the director for measuring the potential productive capacity of trainees. The machine tests the trainee's dexterity, stamina, and productive abilities in a series of common manufacturing tasks by: placing parts (pegs) in slot positions at assembly line speeds; assembling parts at assembly line speeds (nut, bolt, washer) and disassembling parts at assembly line speeds (nut, bolt, washer).

The work pacer is a waist-level machine with working surfaces at either end and a shuttle-like oscillating bar assembly which sweeps the entire working surface during each cycle. The assembly is driven by a variable speed electric motor so work-pacing can be repeated consistently and adjusted to the trainee's ability. Results are obtained on both a self-paced basis and on a machine basis and compared. The theoretical 100 percent output of a "normal" worker has been established by testing production supervisors from a local manufacturing plant. The test results indicate the percentage of normal output of which the trainee is capable. They have proven reliable indicators of actual job performance. Production records kept for six trainees have been within ± 5 percent of work pacer predictions. Each incoming trainee is tested on the work pacer. The results have two major purposes: they are useful in program planning and goal setting for the trainees; they allow the director to provide the potential employer with a reliable indication of the percentage of normal productive capacity to expect from the trainee.

Another excellent practice for post-admission evaluation is to include the parents in the further refinement of the student's educational plan. The Special Vocational Needs Program in Bellevue, Nebraska, supplements its own staff resources for evaluating students by including parents in staff meetings concerning their child's programming. A somewhat unique and effective feature of the intake evaluation is the inclusion of parents in the actual working staff to determine what programs the student should be assigned to. The first evaluation and staff meetings occur one month after a student is accepted. Review staff meetings are held every six months thereafter for each student. The program director feels that parent participation provides the professional staff with valuable insight into the child's home situation, gives the parents a chance to participate in his rehabilitation and serves to enlist the assistance of the parent in continuing the behavioral, sociological and survival skills programs in the home.

CHAPTER 5

MEETING STUDENT NEEDS

The common goal of all occupational education for the handicapped is to provide those experiences that will allow adolescents and young adults who exhibit various degrees of severity of handicap to achieve their highest potential level of independence. The program or sequence of services offered may be as broad or as narrow in design and content as available resources and students' needs and abilities dictate.

Effective methods were found in many variations. The amount of time allotted for this task ranged from a few months to more than six years. The student, in some cases, was involved in virtually every decision affecting his program and in some instances, almost none. Evaluation was continuous, periodic or haphazard and ranged from complete subjectivity to objectivity of nearly antiseptic quality. Training took place in environments as diverse as aged, abandoned school-houses and multi-million dollar, chrome and brick specially-designed facilities. Some excellent programs were being carried out in the most unlikely, austere surroundings. This was perhaps an indication of sound values on the part of the people who set them up. They put their limited resources into student services, not bricks and mortar.

Integration of Services

Integration and coordination of services throughout the student's entire educational career was lacking in many situations studied. The importance of integration of community, business and agency support to supplement a program's internal resources -- thereby increasing the benefit of those resources by leveraging them -- has already been discussed and will be discussed again in Chapter 12. But coordination and integration of educational and supportive services provided to the student prior to, during and after he leaves the occupational program are equally important to success.

It should be noted that a significant part of the rationale behind occupational education is the idea of making better use of the time students spend in formal education by preparing them for the occupationally-oriented world many will enter immediately following formal education. This need to make better use of a student's school preparatory years is particularly important for handicapped students. It is unfortunate, however, that most programs studied, including some of those judged effective, failed to recognize and act on the importance of ensuring that the pre-vocational services received by students before entering a program are coordinated with the objectives of the program they will enter later. Since most programs lead to some type of work-oriented placement for the student, and placement is still within the program's control, integration of pre-program services is necessary. If pre-program educational and supportive services do not appropriately prepare the student for the occupational program that follows, the job of the program becomes that much more difficult.

All areas have the ability to improve their programs by coordinating services with the programs from which students were referred. The improvement in program effectiveness is significant if pre-vocational orientation is offered to the student prior to his entering an occupational program. It is also helpful if the student has some idea of his preferences in occupational options available. The less time the program staff must spend helping the student in areas where he should already have received help, the more time can be spent improving his job-oriented skills and, ultimately, improving his chances for achieving the highest possible level of independence.

The integrated services approach argues for cooperation and coordination throughout secondary education, at least. All of the types of services mentioned here need not be included if resources and environmental circumstances do not permit. It is necessary, however, to consider all methods of coordinating the program with teachers, administrators and groups outside the program so as to achieve the best possible service integration for students. Although that does not necessarily mean that all secondary education must be included in one school, the Roanoke County Occupational School's program, described below, does provide a useful example of how service integration may be achieved.

Roanoke offers a completely integrated program of academic and vocational instruction to the students it serves. The program begins in the seventh grade and extends through high school graduation -- all within the one school. As demonstrated below, one of the strengths of the program resulting from the six-year period during which the student is in the program is the staff's ability gradually to introduce vocational and occupational instruction and interests so that the students see them as a complement to, rather than a substitute for, academic instruction. This gradual exposure appears to be well-attuned to the needs and abilities of the students served. There are four curriculum steps -- pre-vocational, occupational exploration, vocational trade training and job placement.

1. Pre-vocational: Seventh graders spend one period per day in an occupational interest block activity. During the course of the year, all students spend this one period per day for approximately three months in a crafts and ceramics program, three months in a homemaking program and three months in a shop program. The shop program concentrates on work in wood and plastics. Eighth graders spend two periods each day in vocational activities.

2. Occupational Exploration: Ninth graders participate in an occupational exploration program for two hours per day. During the course of the year, occupational training programs in each of the advanced vocational training clusters are offered. Evaluation for advanced training placement in the next step is done in this phase by the counselor, teachers and parents.

3. Vocational Trade Training: Each student, with help from his counselor, teacher and parents, has chosen an appropriate trade training cluster. Considerable programming flexibility exists within each cluster to allow individuals to attain their highest potential. The vocational trade training program consists of two years of training, three hours per day coupled with three hours of related academics. Students are in the tenth and eleventh grades (16 to 20 years old). Trade training is provided in:

    - Sheet metal
    - Construction trades
    - Building Maintenance
    - Auto Servicing
    - Fast foods
    - Institutional and industrial sewing
    - Nurse's aide
    - Cosmetology for self care and entry into certified training
    - Aide (hotel, motel, school, hospital)

4. Job Placement: With the assistance of vocational rehabilitation counselors, appropriate job placement is made with regard to trade training and capabilities of the student. Further on-the-job training, work adjustment training, and trade training is arranged by the rehabilitation unit, if needed. Placement may be in either full or part-time employment depending on the student's needs. In most cases, these placements develop into permanent employment following graduation. Trainable and severely physically impaired students from the regular program are placed in the work activity program which is

designed to train the child to function efficiently in a semi-protective environment. The basic four-step program spread over six years produces a well-adjusted student with usable vocational skills and work experience who is generally well-prepared to cope with competitive employment.

Monitoring Student Progress

The only way to be sure students are receiving the greatest possible benefit from services provided is to set up a definite system for monitoring student progress. Effective programs are distinguishable from poor ones by virtue of having a well-defined system whereby someone is directly responsible for this monitoring function. This can be done in different ways, but adequate criterion reference measures and objectives must be set up for each student to make monitoring meaningful. Responsibility should be fixed so there is no question about who is following the progress of the individual student. Part of this function involves anticipating needs so they can be provided for before they become current.

One of the most common methods is the assignment of case managers. The Cooperative School Rehabilitation Center in Minnetonka, Minnesota, is a useful example because of the continuity from the pre-admission to program completion. The Cooperative School Rehabilitation Center (CSRC) assigns each student to a case manager. The case managers generally carry a case load of about 30 students in any stage of the program from entering student to those in full-time employment. When the Cooperative School Rehabilitation Center was established, teachers, teacher's aides and case managers were the intended core personnel. The position of case manager was designed to provide high intensity management of student programs. Certified psychologists with master's degrees and a background in rehabilitation counseling were recruited for the first case manager positions. After eight years of experience with case management, CSRC has found that persons with this background are indeed suited to the case manager position. CSRC has developed its own approach to student management. The specific tasks in the case management of trainable level, mentally retarded youth can be arranged into three blocks of time: tasks necessary before a student enters, services needed from the case manager while a student is attending the center and services surrounding a student's departure as he enters the world of work. Many services do not start or stop with this division of time but overlap.

The case manager serves as a liaison between the home school district, referring students and the center. Each school district has one case manager assigned to serve it.

Second, the case manager is the primary contact with the parents of students who are referred. Once a school district has decided to consider referring a student, the plan is discussed with the parents and a home visit is made by the case manager before a student enters the program. Third, the case manager provides counseling to the parents. First-hand test information gained by the case manager himself can be invaluable in understanding a student's assets and limitations and devising a plan of treatment or action. The case manager develops an educational-vocational-social plan for each student. He periodically meets with the teachers and rehabilitation aides to review a student's progress and problems. The case manager also conducts group counseling sessions to help remedy long-standing personal and social problems. As the student approaches age 21 or upon leaving the program, the case manager seeks employment opportunities consistent with the interests and abilities of the student. Placement is done by the case manager, and follow-up counseling continues until the student is established both vocationally and residentially. This process is probably more sophisticated and inclusive than many programs can offer, but the idea of continuity ensured via the case manager is valid. Case managers in other programs are often teachers or counselors.

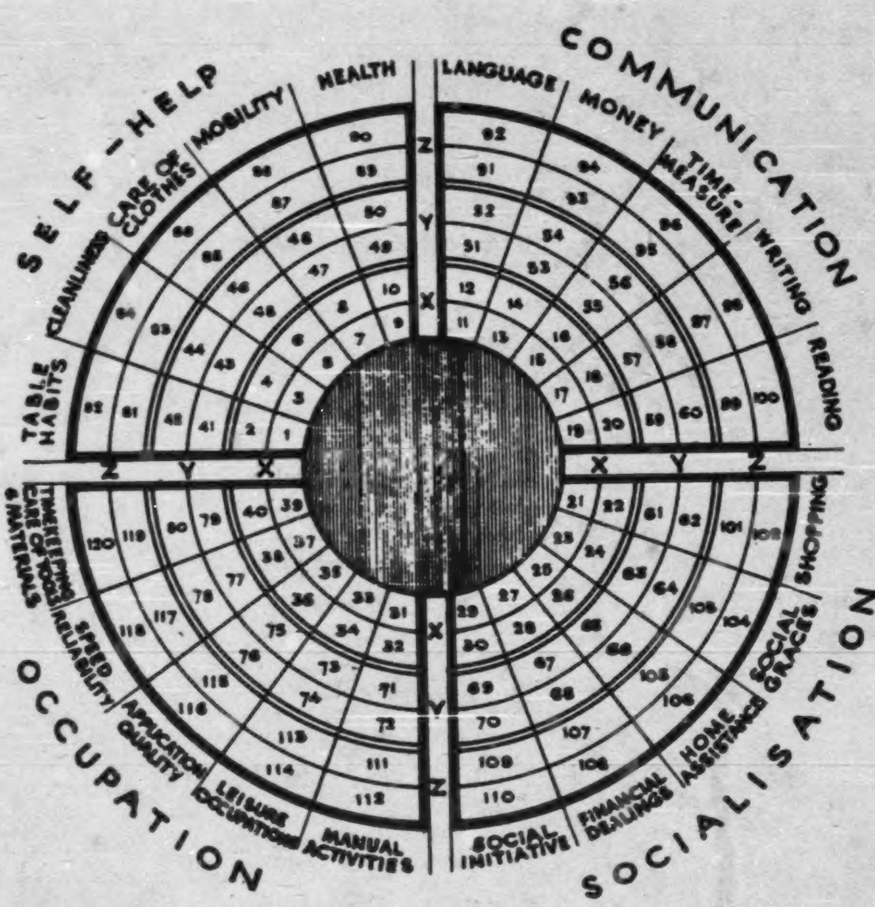
The Pre-Employment Vocational Experience Program of South Bend, Indiana, uses a team teaching approach to monitor progress in conjunction with instruction and counseling rather than the case manager method. A team of teacher-counselors guides students through the program. Each program consists of four open classrooms joined at the inside corner by a control room which serves as a telephone contact, parent conference and crisis management center. Four teacher-counselors provide the instruction, counseling, job training, placement and follow-up for 60 students. By sharing the duties of all aspects of the program, great flexibility is achieved in monitoring the activities of students and staff.

The techniques used to monitor progress vary widely and range from specific objectives to broader indices of progress assessment. Following are examples of some of the most effective monitoring techniques in use in programs surveyed.

The Aux Chandelles program of Elkhart, Indiana, uses the Individual Program Plan along with the Progress Assessment Chart of social development (see Exhibit 7). The chart was developed by H. C. Gunzburg of Great Britain and is distributed in North America by the Aux Chandelles program. It provides a visual check of progress in the four main areas of social development, self-help, communication, socialization. Occupational statements referring to relevant skills and behavior are listed and

Exhibit 7

Name.. Age..........................



Leisure Occupations

33.Q Plays co-operative team games, e.g., football, etc. X
34.Q Plays indoor games of a less physically demanding nature, e.g., card games X
73.Q Takes an active interest in dancing .... Y
74.Q Organises leisure time adequately, on a simple level, e.g., television, football games .... Y
113.Q Is an active member of a club, team or other social organisation .... Z
114.Q Has some hobby, e.g., collecting, knitting, fishing, making models, etc. .... Z

achievements and deficiencies are thus pinpointed with accuracy. Charts are available for students from infant to adult on a developmental scale including a set for Down's syndrome children and adults. Their use can be demonstrated by the following example in the "Occupation" area. A trainable mentally retarded trainee 18 years of age will use the fourth of four levels of the system. The teacher observes the trainee for assessment every six months. If an area is unshaded, the teacher tests or observes the student to see whether he has mastered the task or knowledge since the last assessment. If not, the area remains unshaded, and depending on the student and how long the area has been shaded, the teacher designs a remediation plan tailored to that component. For example, in Exhibit 7, item 33, "Plays cooperative team games -- football," is not shaded. This combined with a review of the client's preceding charts is used to decide on an instructional or remediation plan.

The New Opportunities for Work program in Findlay, Ohio, has developed a set of objectives to monitor progress. A series of terminal and instructional objectives has been prepared by the staff to provide a consistent and systematic basis for evaluating a student's performance in terms of specific tasks or behaviors. There is a distinct set of terminal and instructional objectives in the pre-vocational course and in the various academic and vocational courses. The objectives were prepared by each teacher for his particular course. They are listed on a chart and checked off when the student has met the objective. A terminal objective differs from an instructional objective in that the former defines a desired behavior or task to be achieved while the latter is designed to aid in reaching the terminal objective. For instance, in the clerical area, one of the terminal objectives is to set up and run off 100 copies of something on a printing press. Instructional objectives, in this case, are the various operations such as setting the plate and turning the machine on. Instructional objectives are generally broken down sufficiently so that they are "go or no" -- that is, a student can either do or not do what is required. Pre-vocational terminal objectives are primarily behavioral in nature. For instance, one objective is the following: "Given the situation where the student needs to communicate with his employer or supervisor, he is able independently to communicate his needs, questions, suggestions, or feelings effectively and politely to his employer or supervisor." Academic terminal objectives are related to specific academic achievements, such as the ability to count up to 100. Vocational terminal objectives were developed jointly by the vocational teacher and the work-study coordinator who visit employers in that teacher's vocational area. They categorized each employer's operation into a series of skills, learned from the employer what skills were key to successful job performance, and then translated those skills into terminal objectives. Thus, they developed a systematic method, derived from the real world of work, for identifying and measuring a student's advancement toward employability. Even more important, they isolated those skills necessary for job success. Terminal objectives are listed on a chart and are checked off when the student has met the objectives.

The Special Needs Program of the Calhoun Area Vocational Center in Battle Creek, Michigan, provides a final example of progress monitoring which includes a student-teacher commitment. Progress is evaluated in accomplishing small modules based on employable entry-level job skills. The students participate in the selection of objectives (modules to be accomplished). Employers provide information on the specific modules or job skills achieved by program graduates. Moreover, each student is the responsibility of a special needs team member who also monitors his progress. After an initial student exposure to the occupational area of one or two weeks, the instructor meets individually with each student to discuss what the student plans to accomplish in the program. They reach an agreement and each signs a student/teacher commitment which specifies how many modules the student will complete. This commitment is reviewed with the student periodically throughout the year and updated if necessary. Student progress is evaluated on the basis of performance of the modules. Four times a year a student progress report is completed by the instructor and signed by the student. The reports are sent to the home school, the parents and made available to potential employers.

CHAPTER 6

PREPARATION FOR SPECIFIC SKILL TRAINING

Well-rounded programs of occupational education for the handicapped include several kinds of preparation. Personal and social skills such as proper hygiene and good grooming, emotional control and consideration of others find an important place in the curriculum. Activities such as homemaking, hobbies and recreation are also included. Finally there are kinds of activities that have come to be called "pre-vocational preparation." These activities are designed to promote proper job attitudes, good work habits and manual dexterity. For some students, they serve as a necessary introduction to job-oriented specific skill training. For those students who will never go beyond general skill training, they may provide the only preparation for the work world. In either case, their importance cannot be overemphasized. The need for integration of these pre-vocational activities into the overall scheme of a student's education was discussed in Chapter 5. The purpose of the pre-vocational preparation in the following two examples was to prepare students for later specific skill training.

Pre-Vocational Training

One of the more complete pre-vocational programs is provided at a school cooperating with the Special Vocational Needs program in Bellevue, Nebraska. The students received 1-1/2 hours of workshop instruction each day, about 45 minutes of home-living skills and 45 minutes of functional academics.

Workshop goals are to promote job attitudes primarily and specific job skills only secondarily. The atmosphere in the shop is like that of an industrial environment. Teachers and teachers' aides act as "bosses." Students are "fired" for periods of 15 minutes to one week, depending on the seriousness of their misbehavior. When a child is "fired," he is not allowed in the workshop. The teacher, three volunteers and one aide work with 16 students. There are 16 work areas corresponding to the number of students. Each work area is a 3' x 3' section of a table with dividers separating adjacent areas. Each area has a different project such as woodworking, screwdriver and hammer, decoupage, weaving, Christmas door hanging (cutting, trimming, gluing), cutting skills (Xmas tags out of old Xmas cards), sewing machine, curler stations (piecework from Tip-Top curlers) and nagle stations (eye shadow applicator, piecework from Max Factor). Each student is assigned for a week to each station. After the goal for each station is achieved, the project is changed. There are approximately 100 projects on file at any time with new ones being continually developed. Contingency management charts are employed. The charts for all students are prominently posted. Stars are given each day to each student who meets his production target and who demonstrates proper work behavior. Each student also has a weekly target depending on his ability. If the weekly goal is met, five extra bonus stars are awarded. Stars may later be exchanged for gifts or prizes.

The Vocational Mobile Lab program in Memphis, Tennessee, is a prevocational exploration and awareness program using six mobile classrooms made from standard 12' x 60' mobile home shells to reach a larger number of students than would be possible with the same number of stationary in-school classrooms. It provides pre-vocational training on a part-time basis at a reasonable cost. The program accepts all students from existing special education work adjustment classes for one period each day of a 6-to-8 week period before moving to another school. The labs serve junior and senior high school special education classes in 21 high schools composed mostly of educable mentally retarded children (IQ, 50-75), hearing impaired and physically handicapped students. They receive pre-vocational and hands-on simulated work experience in metal working, woodworking and home economics. Repetition is possible and encouraged in grades 7-12. Students are scheduled by the special education department. There are two counselors who function primarily as guidance counselors. The most unique program feature is the mobile classroom. The original cost for six bare shells was $42,000, and the total capital cost of the operating units was $66,000 including all equipment. The staff consists of six full-time teachers, two coordinating teachers, two counselors and one program administrator. Annual cost per student is $319 if all students served in one school year are counted. Annual program cost is $117,084 of which $95,000 is salary expense.

Attitude Adjustment, Exploration and Evaluation

The Vocational Preparation Program in the Carl Hayden High School, Phoenix, Arizona, provides a more formal pre-vocational program in 32 occupational areas. The goals of the training are attitude adjustment, occupational exploration, evaluation, and, to some extent, skill development. Sophomore students take three hours of academic instruction and two hours of vocational training while junior students have work experience for two or three hours and obtain three hours of either academic or vocational training in alternate quarters of the year. Each occupational task is carried out in a 4' x 8' x 3' training station. Each station contains tools, work samples and written instructional material. The instructional material contains objectives, procedures and pre- and post-work examinations. The instructional materials for some occupational areas are supplemented by audio tape cassette instruction. Materials also include pictorial supplements for students who are hearing impaired. On the average, one instructor (teacher, teaching assistant, or tutor) is available for every five students. Teaching assistants and tutors are selected from non-handicapped juniors and seniors who rank in the upper 10 percent of their class. They not only function as tutors but also as big brothers and sisters in social activities. The average length of participation is about 30 hours for a given task area. Minimum performance is required before a student is allowed to proceed to another area. The program occupies two, 800-square feet mobile classrooms on the Carl Hayden campus. One unit is a regular classroom. The other contains 17 modular work-study cluster units.

At the Work Experience Program in Reno, Nevada, a series of video tapes have been prepared as a pre-vocational, instructional device. The tapes, along with programmed slide presentations, are used to expose students to specific jobs by portraying students in real life, on-the-job situations. Many of the video tapes are also used for public presentations to explain the program and its various facets. The value of the video tapes is twofold. They provide students with a means of job exploration, and at the same time motivate them because they see former students performing real jobs. Some of the subjects include a dramatization of a job interview, jobs in the motel-restaurant industry, the printing industry and warehousing. Typical of these is the warehousing tape. Warehousing is a new and expanding industry in Reno and is producing many jobs. Workmen narrate the video tapes, describing their tasks and the total warehousing process. Other video tapes, such as the maid tape, are narrated by students describing their tasks. The initial funds for the two studio cameras, TV monitor, editing equipment, and playback equipment came from a 1970 $25,000 vocational education grant. A full-time technician was employed to prepare the tapes and presentation. Since then, the video tape project has been taken over by the county and has been expanded to include other district programs.

CHAPTER 7

VOCATIONAL TRAINING

Pre-vocational programs give students the opportunity to explore many different kinds of work possibilities and develop some skills while doing so. Since the skills themselves are not of primary importance at that stage, they are developed at a general level. By contrast, vocational programs provide for a narrowing of occupational interests and greater depth of skill development. The change of emphasis is not--and should not be--an abrupt one if services have been integrated to prepare students for vocational training. General work skills are cultivated first followed by skill training specific to a particular job or cluster of jobs.

Effective vocational programs for the handicapped require a graduated but flexible curriculum. The vocational portion of the overall program varies according to the extent of fiscal and other resources available, the educational environment and the nature and degree of handicaps involved. There is a wide variety of possibilities ranging from low-cost work-study programs to more sophisticated and more expensive skill training programs. Work-study opportunities will usually tend to be unskilled because of the reluctance of employers to train unskilled and handicapped workers. A variation of the work-study type of program is on-the-job training where the student usually receives more supervision either from the program staff or from the employer--sometimes through available vocational rehabilitation subsidies to employers. Higher level skill training offers a greater probability of the student's becoming more attractive to employers as a semi-skilled or skilled worker. Skill training also varies depending on the number and degree of technical complexity of the occupational options offered. The basic options can be made more sophisticated by combining them. The Roanoke County Occupational School in Salem, Virginia does this successfully by offering vocational skill training to tenth and eleventh grade students prior to full or part-time work experience in a work-study arrangement in twelfth grade.

Low Cost Skill Training

Work Experience. One of the least expensive formulas for providing vocational training among the examples given here is that represented by the cooperating portion of the Special Vocational Needs program in Bellevue, Nebraska, at the Vocational Center for moderately to severely, mentally or physically handicapped. The training offered is only slightly more advanced than the average pre-vocational preparation. At Bellevue, the workshop experience is nevertheless aimed at the student's eventual outside employment after an acceptable skill level has been achieved. This example also illustrates how closely linked progress monitoring is with skill development in a supervised work environment. The Vocational Center, just outside Omaha, Nebraska, provides year-round, workshop-centered experience. Students work in piece-rate contracts and earn money for their production. All other training (academics, grooming, survival and socialization skills) are as vocationally oriented as possible. The training, generally, is not oriented to specific jobs but to employment in general. The workshop environment is structured. Students may be at the work tables assembling curlers or nagles, in the boxing area (gluing plastic bags into boxes under a contract to Anderson Box), doing janitorial work, or in the warehouse area where they load and unload contract work (some using a forklift). They also have academic instruction, counseling and field trips. Bells ring at the beginning and end of the day, at breaks and lunch hours. Students must fill out a time-card for each activity. There are four trainers, averaging seven clients per trainer. The trainers teach work skills and supervise the production area. There are also two related instruction teachers. Students are given housekeeping duties, clerical assignments and warehousing duties to provide additional work experience. The related instruction teachers provide both individual and group instruction depending on needs and interest. Individual instruction could last anywhere from 15 to 45 minutes. While the work environment is highly structured, training and teaching is performed in an individualistic, flexible manner. Each student is trained according to his needs and the goals specified for him.

Precision teaching techniques are employed by both the trainers and teachers. Each student participates in from six to ten programs. Of these, from three to five are for vocational training and related instruction. The program goals and objectives are specified in behavior sheets. Essentially, each program represents a behavior, skill or piece of knowledge to be acquired by the student. Programs are further specified in planning sheets. Each program is broken down into an event, a movement cycle (response of the student), the ratio of reinforcement to successful student response or movement and the form of the favorable feedback (arranged event). Movements or occurrences are recorded on a frequency record sheet. Then, these frequencies are plotted on a daily behavior chart. Targets are also plotted on the behavior chart. Slopes of the lines drawn through data on the chart indicate the rate of progress of students. Standard rates of progress are used as comparisons to evaluate progress.

Work-Study. The Work-Study Experience Program in Russellville, Arkansas is probably the purest form of the work-study type of program. It is a small program serving approximately 15 students in a semi-rural school district in northwest Arkansas. The program for most students spans three years during which they receive one-half day of work experience in either an on- or off-campus work station, depending on their abilities and the progress they demonstrate on the job. Work stations off-campus are not fixed but depend on current employment opportunities. Many trainees go on in the same jobs on a full time basis upon graduation.

On-the-Job Training. The Cooperative Vocational Education program in Doylestown, Pennsylvania, has selected a more supervised, on-the-job training type of preparation, partly because of the nature of its students, all of whom are moderately to severely, mentally or physically handicapped. In this program, virtually all the specific skill training is done on the job by occupational training specialists who follow a five-step procedure.

1. Identifying a potential job: The director has a list of industrial areas of opportunity from which the training specialist may choose and visit the prospective employer. Presumably, they do the job search with the general skills of their student group or individuals in mind. There is no formal assessment and matching procedure of job to student and vice-versa.

2. Learning the job: By working on the job for approximately one week, the training specialist becomes familiar not only with the job but also with the work environment. He is now qualified to train the student on the job.

3. Fitting the student to the job: This step may precede Step 2 and differs in degree. The training specialist will often bring a work sample back to the class, if possible, to work with the student in the classroom to build confidence prior to actually trying it on the job. This approach obviously is not possible for jobs requiring substantial equipment or machinery.

4. On-the-job training: The training specialist works alongside the trainee on the job for approximately 2-3 weeks, gradually allowing the trainee to become more independent and self-reliant. In addition to the immediate task, the training specialist also trains the student in good work habits such as cleanliness and promptness.

5. Follow-up: Depending on how rapidly or slowly the trainee begins to function efficiently on the job, the training specialist will begin to appear less frequently, leaving the trainee alone for longer periods or take him

off the job if it appears that he is not making sufficient progress. If the trainee is successful, the training specialist will continue to make follow-up calls with decreasing frequency until the trainee reaches the age of 21. These later calls often are not with the "employee" but with the employer. Once the trainee is acclimated, the training specialist tends to keep as low a profile as possible in the hope that the employee eventually will be accepted as no different from others.

Given the aptitude level of the students in the program, the skills in the initial job placement are repetitive. Examples are assembler of a part of fluorescent lights, armature winder, cosmetics packer and chipper/grinder. The jobs do show, however, some positive variance from the traditional positions for severely handicapped students of dishwasher, janitor's assistant and yard attendant. It is evident that the program has made successful attempts to introduce moderately to severely retarded individuals to tasks of higher levels of difficulty. The individualized, on-the-job training is probably the key to its success.

Off-Campus Work Stations. Similarly, close supervision in off-campus work stations in industrial locations is the approach of Aux Chandelles, a program that also serves moderately to severely handicapped students. The work station in industry is an intermediate placement between competitive placement and a sheltered workshop setting. It is comprised of a full time supervisor for approximately eight trainees engaged in a maintenance contract with a large department store. The contract is actually held by a local contract maintenance firm that in turn employs the trainees and supervisor. The contract was won in competitive bidding with other maintenance firms. The work station offers closer supervision, greater assistance and a longer start-up period for trainees than is possible in most competitive job situations. The results of the first work station have proved so satisfactory for the trainees, the employer and the department store that a second work station has been established in the local Sears store. That contract was also won in competitive bidding.

Cooperative Programs. Institutions often house students who are similarly handicapped to those in the target groups of the four programs just discussed. Certainly, given the resources, similar techniques could be used in an institutional environment to offer vocational preparation. The New York State School for the Deaf in Rome, New York, on the other hand, has successfully established a cooperative program with the local Board of Cooperative Educational Services facility that provides fairly high level skill instruction to its students in integrated, normal hearing classes. Students are transported to the program in their senior year each day for a half-day session of vocational training. Similar cooperative efforts between institutions and local vocational-technical schools or even community colleges for post-secondary students exist around the country.

Higher Cost Skill Training

Many programs offering specific skill training to handicapped students teach general skills in the beginning and move to more specific and difficult skills as the student demonstrates proficiency. The general course outline of one of the occupational areas of the Keefe School Special Needs program in Framingham, Massachusetts, illustrates the movement from general to specific skills for its students in a relatively high-cost program. The basic maintenance and groundskeeping course is divided into three major sections:

> Section A: Preparing the Student for A Condition of General Work Readiness lists the objectives (16) and suggested activities that the low capability trainable mentally retarded students in the training program should accomplish if they are to be prepared to work anywhere. These activities should be a part of a total program, constantly reinforced and used where applicable.

The following are examples of specific educational objectives used in Section A:

A-1 The student will understand the meaning of job responsibility, especially as it applies to the performance of each job task.

A-2 The student will understand the meaning of job satisfaction.

A-3 The student will understand the necessities for working and the differences in life styles between people who work and those who do not work.

A-4 The student will understand the importance of practicing responsibile behavior in appearance, cleanliness, punctuality and using a time clock.

> Section B: Introduction to Basic Maintenance and Groundskeeping as a Work Area lists suggestions (14) for preparing the student to perform on the job in these specific areas. They include learning the job vocabulary, the appropriate clothing and other factors related to job preparation. In this section, worker qualities such as speed, tolerance and doing an acceptable job are also stressed as well as learning the meaning of responsibility.

Section C: Specific Job Training in Basic Maintenance and Groundskeeping lists the specific tasks (51) included in the program which the student might have to perform on the job in the areas of maintenance and groundskeeping.

Examples of tasks defined in Section C are:

C-1 The student will be able to use a hand duster.

C-2 The student will be able to use a whisk broom for cleaning draperies, slipcovers on furniture, furniture in general

C-3 The student will be able to use a dustpan and counter brush to pick up dust and other waste material.

C-4 The student will be able to use a radiator brush to dust in places that are too narrow for a counter duster.

This graduated progression of the student from less difficult to more difficult skill levels in a skill-training program is seen even more distinctly in the skills cluster approach of the Vocational Individual Assistance program in Eastlake, Ohio. The cluster concept is used in each of the five vocational areas offered. They are arranged by ascending levels of difficulty. Each student's progress is noted on a set of cards and on a wall chart. For example, the curriculum in the custodial and building and maintenance area has been divided into five clusters. The first cluster concentrates on desired work and social behavior such as personal cleanliness. The second cluster focuses on simple mopping and cleaning. The third cluster progresses to more difficult cleaning such as cleaning lavatories. The fourth cluster is more advanced. Students master waxing, stripping and minor plumbing. The fifth cluster emphasizes independence on the job. As the student progresses through the clusters, his performance is tracked on a set of cards. A slightly different progress record is kept in the welding area. In this area, the clusters focus on four types of welding. A progress record for each student indicates the day the student began a particular step, the number of days it took to finish the step, a grade for the final product and a running monthly average grade. Students must successfully complete one task to advance to the next. If a student reaches a plateau, as determined by the vocational teacher, the progress cards serve as a guide to the tasks he can or cannot perform. This information is useful to the counselor-evaluator if transfer to another area is being considered and to the work-study coordinator for placement purposes.

The Keefe School Special Needs Program, although housed in a regular vocational high school, and the Eastlake, Ohio Program both offer vocational preparation in classes attended only by handicapped students. Several programs observed greatly augmented their resources for providing skill training by integrating students into primarily non-handicapped vocational classes whenever possible. This approach is not possible, of course, for all handicapped students. But it is desirable if for no other reason than that more handicapped students can be served if fewer programs and facilities must be established.

The Special Needs Program integrates handicapped students at the Calhoun Area Vocational Center in Battle Creek, Michigan, to provide them with specific skill training. Students requiring special assistance are referred to the special needs team for remedial reading or math work or vocational and personal counseling. A graduated skills cluster approach is used for its integrated classes but supported by the special needs team. A research project developed ten individualized training packets for handicapped students. The packets are based on a modular approach and are designed to build on success and to foster cooperation between vocational and special education teachers (at the home school) in the program planning for and teaching of the handicapped. Once the student is placed in an occupational cluster or subcluster program, teachers begin the actual process of cooperative teaching. A series of instructional units is chosen or developed for each student. Each instructional unit is based on entry-level job tasks. Task sheets (instructional units) represent the basic tool that teachers may use to plan, implement, and evaluate a cooperative vocational education/special education program. Exhibit 5 in Appendix C is a sample task sheet. The front side of the task sheet is composed of four sections. The behavioral/task skills identify the specific mental understandings or associations needed in the performance of the task as well as the physical, manipulative activities associated with performing the task. The instructional methods and materials portion is designed to suggest specific teaching techniques, strategies and materials that have been used effectively with handicapped students. The task-related competencies section identifies some specific learning readiness skills associated with the task. The reverse side of the task sheet is designed to help the special education teacher teach more effectively. The language of the task and quantitative concepts provides a common ground for communication between the cooperating teacher and the vocational teachers. Suggestions and supportive instructional materials include a variety of suggested teaching activities--ideas, games or materials that may be used in providing an effective and supportive link with vocational instruction. Packets or "cluster guides" have been developed for ten occupational clusters: health occupations, food preparation, agriculture/national resources, clothing and textile services, office and business occupations, distribution, construction, graphics and communications media, automotive and power service and manufacturing.

The instructional units, modules, or clusters approach in an integrated program is also used by Vocational Village in Portland, Oregon. Vocational Village uses an individualized instruction approach in which each student works at his own pace toward achieving his objectives. This approach is accomplished by means of a basic unit of instruction called a job sheet. The job sheet is a description of a task the student must do. It also details the specific activities encompassed in the task. Completing the activities listed in the job sheet requires from one to two hours. Students work on the job sheet individually during the class period and the teachers are able to provide individual attention to selected students at this time. Job sheets are used exclusively in both the vocational and basic education courses.

The Range of Occupational Opportunities

There is a wide range of occupational possibilities open to both mentally and physically handicapped students. The Calhoun Area Vocational Center offers 26 occupational areas for the students it serves. They include normal, disadvantaged and handicapped. Students attend their home high schools half a day for academic training and the Calhoun Center the other half of the day for vocational training. Handicapped children are enrolled in 20 of the 26 occupational areas.

In the period 1972-74, the handicapped children were enrolled as follows: agricultural mechanics (2), air conditioning and refrigeration (1), auto body repair (2), auto mechanics (9), building maintenance (15), carpentry (5), child care (5), commercial art (2), cosmetology (1), drafting (1), food service (15), graphic reproduction (1), institutional and domestic service (18), landscaping, horticulture, and floriculture (4), marketing and retailing (2), nurse's aide and male attendant (3), radio and TV repair (2), secretarial and office practice (2), small engines repair (1) and welding (5).

Depending on the capabilities of the handicapped group served, the possibilities are even wider than the above list indicates. The innovative jewelry program at On-Campus Vocational Education in Los Angeles, California, for deaf and orthopedically handicapped students was developed by a special education teacher who had been operating a jewelry-making business in her home. A class in jewelry-making was begun, using the teacher's equipment and a buffer purchased with trading stamps. After the program had operated for a year, the school district purchased more jewelry-making equipment. Eight super 8 mm loop films have been developed by the district to help train students in machine buffing, flex shaft polishing, hand polishing, hand sawing, silver soldering, wax processes, forging and setting stones. Most instruction is highly individualized, and special jigs and teaching techniques have been developed to accommodate particular handicap conditions. Materials for projects are generally paid for by the parents. The students produce rings, pendants, tie clasps and other jewelry, many of which are sold to the public for the price of the materials. According to the jewelry-making teacher, skills taught in the class are similar to the skills required for many other trades, including dental lab work, lock manufacturing, golf head casting, aerospace and high technology assembly manufacture.

The Missoula Technical Center in Missoula, Montana serves a group of handicapped students and adults integrated with regular vocational students. More than 17 percent of the students have a handicap of some kind. They include educable mentally retarded, emotionally disturbed, disabled, crippled, visually handicapped, speech impaired, hard of hearing and other health impaired. There are a number of multihandicapped students enrolled. The program is directed toward full time employment in a normal work environment and has demonstrated the ability of some handicapped students to perform skilled jobs if given the training and opportunity to work. Handicapped students have received training in several advanced vocational/occupational areas including aviation, business and office, electromechanical, data processing, forestry, heavy equipment, small engine repair, welding and road construction. The school uses a team approach tailored to the individual. Students progress at their own rate and handicapped students particularly are apt to try different programs before they find a suitable one. This is encouraged as a valuable occupational experience. The coordinator of services to the handicapped and the Center's staff use diversified methods of special help and educational materials, including textbooks on cassettes, sound-on slide series and close work arrangements with occupational therapists.

CHAPTER 8

RELATED OR 'ACADEMIC' INSTRUCTION

If handicapped students are to function independently after they leave a vocational program, they must receive related instruction to give them a social foundation. Unfortunately, this related instruction is usually called "academics." These studies--both social and technological--must relate to the needs of students and the world they will live in. They should not be regarded as merely traditional academic add-ons. In fact, related instruction or functional academics, when well designed and skillfully woven together with the vocational preparation components of the program, is essential to building confidence and providing a bridge to the outside world. Rapport between teachers of these related subjects and vocational teachers is better established and can have more productive results when their classrooms are housed in the same facility. The kind of close coordination needed becomes difficult when vocational training takes place in another building or location.

The Bergen County Vocational School in Paramus, New Jersey, has an exemplary program of related academic subjects. One of the primary reasons for the high degree of rapport achieved between the vocational shops and the related academic subjects in this program is that the academic teachers treat their classrooms as extensions of the vocational shops. The social skills curriculum is the foremost example of a class in which the usefulness of the curriculum content is determined by the extent to which it complements the students' vocational classroom experiences. The following subjects are examples of a basic social skills curriculum which extends over three years and is altered or juggled as necessary to fit with the changing emphasis the student encounters in the vocational shops.

- Shop-related Instruction: measurements, terms, concepts, businesses.
- Employment: applications, interviews, using employment services, taking tests.
- Form completion: bank accounts, income tax, insurance withholding.
- Consumer education: how to shop, where to shop, what to buy.

- Social behavior: how to get along with people including fellow employees; gifts, invitations, eating habits.

- Family/home skills: family roles and interactions, housekeeping, apartment hunting, child care, budgeting.

- Geography: how to read maps, how to get from one place to another.

- Citizenship: how to register to vote, understanding government, good citizenship.

Many other areas are covered in the course of this constantly changing three-year curriculum. Two other factors reinforce the bond between vocational experiences and related practical social skills. Each academic instructor is given 45 minutes a day to plan and coordinate with the vocational instructors and other academic teachers. Often, this time is used by the academic teacher to visit his or her class while the students are in the shop. The most recent experiment has been reversed-role team teaching in which the vocational instructor assists in the social skill classroom.

The second factor is that a vocational class retains its grouping through each of the three academic classes, including social skills, throughout its program career. This allows the academic teachers to plan multiyear curricula with significant tie-ins among the three classrooms and with the vocational instructor. Interclassroom coordination and an emphasis on practical programming related to the student's vocational instruction are keys to the effectiveness of the program.

The New Opportunities for Work program in Findlay, Ohio, has a split-school program with the related subjects taught at the student's home school. Home school special education teachers accompany their students to the pre-vocational and vocational classes. There, these teachers serve as job supervisors or assistants to the vocational teacher. The exposure the special education teachers receive in the vocational classroom produces several benefits. It allows the teachers to observe their students in a role other than the classroom situation, thus broadening the scope of their understanding and evaluation of the individual student. In many cases, the teachers have virtually restructured their instruction in the home school to enhance the relationship of academic skills to the vocational class planning and teaching thus adding to the time available to the vocational teacher and allowing more individualized attention to students. The coordination achieved in this program may be too expensive for most areas in terms of the lost teaching hours of the special education instructors while they are in the vocational area. But the concept of periodic half-day visits by the related subject teachers is valid even on a reduced basis.

At the Cooperative School Rehabilitation Center in Minnetonka, Minnesota, a group of related subject areas has been created to serve more severely mentally and physically handicapped students. Students are rotated through a so-called "cafeteria" of program areas. Individual programs are redefined, as needed, to reflect an on-going evaluation by the case manager. A particular student's schedule, for example, might be: home center, lunch, social perceptual training, maintenance training and physical education. Following is a brief description of several of the program areas.

1. Gym -- The physical education program serves two basic needs. It meets student needs to participate in an organized, physically demanding program of exercises and sports. It also allows the students to develop better body coordination. Activities include exercise, tumbling, trampoline, ball skills and rhythms. Competitive sports are also offered in several cases.

2. Academics I, II, and II -- Academics is designed to teach conventional academic skills. Three levels are offered. The first serves students with demonstrated difficulty in reading, writing and oral expression. The basic tool is the Bloomington Project Reading Manual which uses a phonics approach. The second is a money class where students learn how to count money and make change, using a special money board. The Center has opened a store to give students even more experience in handling money. In the third, students learn how to tell time using workbooks, work sheets, clocks, flashcards, filmstrips, tapes and games. Students who have learned money and time may enter the math class where practical math is taught.

3. In the hearing impaired area, which is designed to serve the severely hearing-impaired students, the focus is on communication through sign language and speech. A recent survey revealed that about one-half of the students had a hearing problem.

4. In independent living, students are taught basic home skills such as cooking and cleaning. An apartment is set up where students may reside overnight to learn by doing.

5. The Montessori program is conducted by a fully qualified Montessori teacher. Students are very carefully guided in sensory-motor learning.

Several other program areas are offered including music, speech, family life, news, photography, science, cosmetics, verbal conditioning and social studies.

Finally, there are problems of teaching "life support" subjects to students who are in institutions or similarly sheltered environments. The cooperative program at the New York State School for the Deaf in Rome, New York,offers a series of "life adjustment" courses for its students. The pre-vocational work exploration program includes a series of 10 short 2-3 week courses in subjects basic to living in a non-sheltered environment after graduation. Subjects currently covered in this series are: social skills, dating, mate selection and marriage, "you and deafness," "you and the law," community services, employment, income and taxes, social security, insurance, sex education and social hygiene. The courses are presented in 2-3 hour segments on the campus. Classes of 10 to 12 students are taught by academic teachers. Auxiliary personnel, such as librarians, psychologists, and audiologists, participate in planning sessions. Most of the material for the course was developed in 1968 by the school under a National Defense Education Act Title V-A grant from the State Bureau of Guidance. The material is designed for the deaf student and includes a basic Life Adjustment Outline (266 pages) used by the instructor and an accompanying "Life Adjustment Dictionary" used to record new words and augment the relatively small vocabulary of the deaf person. The dictionary was compiled to increase the student's understanding and use of technical terms, common and colloquial words or expressions and the vocabulary related to the subjects taught in the life adjustment courses. The dictionary is divided into sections according to subject matter and there is space for the student to add words or write correct pronunciations. The dictionary is the property of the student and is used as a text during the school year and as a handy reference after graduation. The Ball State program in sex education and the Illinois school program in social hygiene are also employed as basic materials. The life adjustment course provides deaf students with a foundation of knowledge that the non-handicapped gains in everyday life. The course materials and content can be adapted for use by students with other handicaps.

CHAPTER 9

SUPPORTIVE AND SOCIAL SERVICES

Every successful program of occupational education for the handicapped must provide a comprehensive range of services. There are numerous options available to structure a good program, but three basic building blocks have already been discussed: an effective process of monitoring student progress; a pre-vocational preparation phase in which the student learns general skills and work attitudes; and social and technological skills. There is a fourth category of services which will enhance a student's basic abilities greatly. These are the complementary supportive and social services such as medical and psychological examinations and treatment, parent and student counseling, social work, physical therapy, transportation, recreation and leisure and provision of residential facilities.

Soliciting Outside Help

All of these services are not necessary for each student although they should be well integrated where they are provided. For example, residential facilities are rarely needed for ambulatory and minimally handicapped students. Nor are all of them within the scope or capability of each program. In many cases, if services of this type are necessary, help can be found outside the program. Vocational rehabilitation is one source of outside supportive services. There are many others.

The Roanoke County Occupational School provides some examples of the benefits active solicitation of outside help can bring. By active solicitation of services and support of most of the following groups, the Roanoke program has not only supplemented the services offered within the program by the public school system but has also established a communications link with agencies and organizations outside the public school system. This link serves to improve both the program staff's knowledge of the environment students will eventually enter. It also serves to generate community awareness of the program and what it is trying to accomplish. During the initial development of the program, the cooperation of vocational rehabilitation was sought and arranged for through a contractual agreement. The contract provides services including counseling, placement and follow-up to students. The vocational rehabilitation unit supervisor coordinates the activities of three counselors--all of whose offices are within the school.

From this cooperative relationship many other sources of outside services have developed either through the requests of the school staff or vocational rehabilitation, or both. Some of these groups and the services are listed below:

- Mental Health Services performs long-range follow-up and transitional counseling for program graduates via an "adult life transitional counselor" who resides at the school.
- Goodwill Industries provides vocational evaluations, work adjustment training and skill training.
- Woodrow Wilson Rehabilitation Center provides vocational evaluations, work adjustment training and skill training.
- Virginia Western Community College provides additional or specialized vocational training.
- Employment Security provides assistance in job identification.
- Academy of Medicine provides free medical examinations.
- Roanoke Lions Club provides free optical aides.
- Jaycees sponsor and completely fund an annual "Special Olympics."
- Industrial Learning Corporation provides job readiness training.

Reviewing Student Needs

Recognizing the need for a fairly comprehensive set of supporting and social services for special needs students, the state of New Jersey now requires that comprehensive reviews by child study teams at Sicklerville, New Jersey be conducted. The basic child study team (mandated by state law) consists of a learning disabilities specialist, a social worker and a school psychologist. Operationally, in the Employment Orientation Program, the guidance counselor is also a member of the team. The team calls in specialists, such as the school nurse, psychiatrist, neurologist, ophthalmologist and others who may be of assistance in accurately assessing the student.

The team has six basic responsibilities:

1. Evaluation of applications for admission to the special needs program.

2. Diagnostic testing, evaluation and review of every student in the program. Team members visit every employment orientation shop every day and regular shops twice a week.

3. Approval of recommendations for transfer of students to the regular shop program. Approvals include recommendations to the vocational teacher on appropriate program modifications. A conference is held with the regular vocational teacher to discuss student needs prior to the transfer.

4. Development of corrective programs for students who are not succeeding.

5. Formal re-evaluation of special needs students at least once every three years as mandated by New Jersey State Law.

6. Action on referrals from the regular vocational education program.

Developing Independent Living Skills

Independent living skills, particularly for more severely handicapped students, are important to develop, but often instruction in classroom-related subjects is insufficient. The ability to use public or private transportation is an important skill of this type. The Keefe School Special Needs program in Framingham, Massachusetts, instructs its students in the normal use of public bus transportation, for example. Many of the programs observed during our survey included driver education as part of the program for less severely handicapped students such as the program in Paramus, New Jersey, at the Bergen County Vocational School.

A broader approach to the development of independent living skills is the basis of a demonstration project begun in 1969 by Laradon Hall in Denver, Colorado, for retarded children. The sequence of movement begins with two dormitories, one for males and one for females, where rudimentary housekeeping skills are taught. Next, semi-independent apartments supervised by resident counselors allow the students to learn housekeeping skills of cooking, cleaning, buying, budgeting and clothing care under close supervision. At a later stage of a student's development, co-residential apartments located in downtown Denver are provided where supervision is minimal but still available when needed. Costs, planning, and housekeeping tasks are shared by the co-residents. Finally, very capable individuals may live in apartments of their own choice, provided they can demonstrate that they have learned the skills necessary for self-management and independent living. The movement from dormitories to independent apartment living is based on a record of increasingly mature job performance and the promise of maintaining an acceptable level in the future.

The residential living program at Laradon Hall has been in operation for five years and was originally funded by the Department of Health, Education and Welfare. The purpose of the program is to provide a graduated integration of retarded persons into the regular community life by developing their own self-dependence until full integration in an independent living situation is possible.

The program is aimed at three major retarded groups:

1. Retarded persons who have sufficient job skills but cannot live independently because they are unable to manage the problems of every day life.

2. Those whose personal adjustment can be most effectively treated in a small group living situation concurrent with their receiving vocational training.

3. Those who need a gradual transition in independent living such as persons discharged from state institutions or young adults from overprotected home situations.

Criteria for admission are: ages between 16 and 35; IQ's between 40 and 80; no "hard core" delinquents or active psychotics; and only manageable physical handicaps.

Dormitories - The dormitory phase is designed to achieve emancipation from the home (or institution), membership in supportive peer groups and emotional foundation for self-acceptance. Each part of the program in the dormitory is designed to allow the trainee to see himself as a competent individual. The accumulation of positive experiences is perhaps the greatest aid in helping the trainee to accept the fact of his limitations. Very specific individual activities are provided. Each experience is structured for the trainee to encounter a challenge independently and to succeed.

The Semi-Independent Apartments - When a residential trainee has been successfully placed on a job in the community for at least three months, and when he or she has met all the goals of the dormitory phase, the person moves into the advanced phase of the training program--semi-independent apartments. The apartments are residential units located next to the dormitories or nearby. They are small group living situations with between four and eight persons in each group. Apartment residents often use the Laradon Hall cafeteria for their meals, but they also do an increasing amount of cooking of meals in the apartments, using some staff instruction and supervision. Household rules are kept at a minimum and pertain to requirements about nighttime hours, household chores and visitors to the apartments. Supervision is provided by two part-time, live-in counselors: one for the young men's apartment and one for the young women's group. The counselors' emphasis is less on guidance than helping residents assume the kind of responsibilities that accompany their increased freedom. An apartment social worker is also available to provide case work services and personal counseling.

Independent Living in the Community - This phase is designed to assist the individual in making the adjustment to his or her first permanent employment in the community as well as the transition to independent living. In this phase, less intensive supervision is provided with greater expectation of responsibility and independent adjustment. The trainee is not called on to adjust to a new employment situation and new living arrangements at the same time. Usually a steady job situation is mastered before complete independence is attempted.

Counseling the Student

Student counseling is probably the most commonly provided support or social service. It is often provided by the program staff. The Vocational Training and Evaluation program in Tuscon, Arizona uses an intensive and extensive counseling program to help each student develop a positive self-image. Since the student population is made up of ten students from each of the five area high schools and includes various ethnic and racial groups, misunderstandings and conflicts abound. Each time a fight occurs, a counselor uses the confrontation to probe the causes and the feelings of those involved. This crisis counseling is supported by systematically pursued counseling sessions of a more formal nature. The sessions deal with the meaning of being handicapped, minority status, stereotypes and a variety of ethical, moral, personal and social questions. As the student becomes more secure in his self-identity, the discussions become more personal and focus sharply on problems of independent living and self-management. In the half-year the program runs, a rather impressive array of problems is dealt with. All of them are designed to help the students understand themselves and their surroundings.

A more intensive type of counseling, evaluation and remediation is used in the Development of Vocational Education project in Huntington, West Virginia. In a vocational education program for the handicapped, it is not unusual for a teacher to have to face psychological or ability problems that take up a great deal of time. In some cases, these problems are minor and can be solved in the classroom. In other cases, more intensive evaluation and remediation is called for. In response to this situation, a remedial center has been established to augment the regular vocational curriculum. The center consists of a one-room facility and is staffed by a teacher and an aide. The teacher has a Master's degree in Special Education and additional hours above the Master's in Learning Disabilities. The objective of the remedial center is to assess a student's strengths and weaknesses in areas of the basic skills needed for career training in order to prescribe a plan of remediation and to carry out that remediation in those areas in which the student is experiencing difficulty. Students may be referred to the center by vocational education teachers, and in special cases, by the Department of Vocational Rehabilitation. A referral form containing information on the student's background and problems is used to transfer the student to the remedial center. Students are generally referred to the center if they are experiencing problems that the vocational teacher has found difficult to overcome.

Upon acceptance into the center, each student is given a number of diagnostic tests based on his characteristics and previous testing experience. Generally each student takes the Adult Basic Learning Exam, the Spache Diagnostic Reading Scales, the Standard Diagnostic Arithmetic and Reading Tests and the Botel Phonics Inventory. Others may be given depending on the nature of the individual problems. Based on the test results and the teacher's subjective evaluation, a prescriptive plan of remediation is prepared. That plan is carried out by the same teacher using an individualized instructional approach and a set of multi-media programmed learning materials. Each student proceeds at his own rate in a self-contained center that utilizes audio-visual equipment. An extensive library of instructional materials is also available to each student. A student will typically spend one semester at the center. A conference with the center teacher and the vocational teachers is held periodically to discuss each student.

Of many outside groups or agencies, vocational rehabilitation is one of the most common and often the most reliable sources of vocational counseling for the student. This is the case in the Pre-Vocational Work Study Program in Peoria, Illinois. In many states, the Division of Vocational Rehabilitation plays an active role in assisting vocational programs for the handicapped. In Illinois, this relationship has been strengthened by the creation of the vocational adjustment counselor program in 1972. Peoria is one of ten school districts in the state to employ a counselor. Although the position is financed 80 percent by the Vocational Rehabilitation Division and 20 percent by the Peoria school system, the school is the employer of the counselor who is responsible for related services and vocational counseling. Although he acts as liaison, he is actually a member of the school faculty and therefore reports directly to the program director. He also has access to all school records. This strengthens his role as both counselor and liaison.

All students in the pre-vocational program become Division of Vocational Rehabilitation clients at age 15-1/2. The Vocational Adjustment Counselor receives the complete folder on each student and prepares a workup for the student including a vocational plan. The counselor initiates services, prepares vouchers and records, and provides vocational counseling, counseling with parents and follow-up services to pupil-clients through age 21 or when a case is closed. He acts as a liaison between the Vocational Adjustment Counselor, Peoria Public Schools and the Pre-vocational Work-Study faculty. He may also refer the students to other services such as the Vocational Evaluation Center--a private non-profit organization. The Division currently subsidizes an intensive evaluation at this facility for all students needing this service.

Counseling the Parent

Parental counseling is often overlooked. The teacher-coordinator in the Work Study Experience Program at Russellville, Arkansas, counsels both parents and students and keeps parents involved in the program through the use of several relatively simple devices. The parent-program relationship begins when a referred student has been selected for admission. The teacher-coordinator or the rehabilitation counselor or both visit the parents to seek written approval for entrance into the program.

Throughout the student's career, several types of communication pass between the parents and the program which provide useful information to adapt the student's individual program to fit his changing needs and circumstances.

From the program to the parents:

1. "Pointers for Parents and Others" is a brief two-page list of suggested do's and don'ts for the parents to follow in order to reinforce the type of behavior the program is trying to encourage--responsible work habits and attitudes.

2. "Pupil Evaluation Sheet for Reporting to Parents" is a single sheet which the teacher-coordinator prepares quarterly to inform the parents of the student's assessed progress.

3. Informal visits conducted as needed by the teacher-coordinator or counselor or both as needed.

From the parents to the program:

1. Parent Questionnaire is sent to the parents for their completion and return to the program shortly after the student's entrance into the program so that the teacher-coordinator will receive an early parental evaluation of the student's reaction and the parents' reaction to the program.

2. Rating Scale for Parents is requested from parents at least once per school year to give the teacher-coordinator an extra program evaluation of the student's progress. It is also a one-page form.

CHAPTER 10

TRANSITION TO THE WORK WORLD

The best classroom instruction becomes worthless in assisting students to reach their highest potential level of independence if the gap between the program and the society is not adequately bridged. Every step in the program should contribute to this bridging process. A variety of living, study and work arrangements designed to ease this transition have already been described. There are two sides to the coin -- both equally important: preparing the student for the society and preparing the society for the student.

As far as adjusting to the job world is concerned, the first and most obvious step is to make the curriculum relevant to the local job market. In many existing programs, this has been a weak point. Failure to prepare students for real jobs in the real world obviously constitutes a failure in the primary program objective of making students independent and self-sustaining. From the point of view of the student, it can be a calamity. Handicapped students already have low inter-community mobility and therefore have more difficulty transferring from one job to another. This makes relevance of training to the immediate job market vitally important. Preparing the work environment for the handicapped student requires initial development of job opportunities, careful placement and follow-up of the student after he leaves the program.

Involving Employers at the Outset

It is never too soon to bring potential employers into the picture. Communication with prospective employers should be established early and maintained diligently. The better an employer understands the capabilities of the program's students, the more he will be able to provide job opportunities. To begin with, potential employers should have a hand in planning the vocational portions of the program. In this, public relations is important. The Sicklerville, New Jersey, program made itself known by means of a mail campaign addressed to local employers. Orientation programs can be held for employers. Work-study programs provide a tie with employers in themselves. Employers sometimes contract with a vocational education program to do a specific job. This way employers can be sure trainees are suitable for future employment because they will already have tested them out. Program officials should make periodic visits to employers in the vicinity to find out what they are doing and what kinds of vocational training they need. Findlay, Ohio has developed a procedure of job analysis for curriculum design. Vocational education teachers set up appointments with employers and then interview them on how the curriculum should be adjusted to the needs of the community. "Spin-off" from such activity includes placement opportunities for students as well as technical help with curriculum development.

Job Development

Job development is the search for and development of employment opportunities for the students served by the program. These opportunities rarely occur spontaneously. They include both already-defined jobs and jobs that require working with the employer to adapt them slightly or modify them so they may be performed by the handicapped. The job development task often provides useful information to the program staff concerning the employment environment. This information can be used to make necessary adjustments to the students' programming to increase compatibility with the employment environment. This compatibility factor is also important from the student's perspective. Successful placement cannot be decided solely on the basis of whether or not a student is employed. It must also be seen in terms of the student interests, capabilities, chances for remaining employed in the projected job market and opportunity for future advancement. Job surveys and business contacts of the staff should provide an initial base of potential employers and, possibly, specific job opportunities. The construction of an inventory of potential employers and jobs is part of the establishment and management of external relations. Broad and continuous screening of the employment market is useful in job development and in many other facets of the program's continuing relations with business and the community. Programs that are willing to commit staff time to these activities are usually more effective in meeting the needs of students and in bringing them to a higher level of independence than those that do not make such use of staff.

The Director of the Vocational Training Department of Aux Chandelles in Elkhart, Indiana, spends considerable time developing community resources and building effective relationships with employers. The benefits of this general job development effort become apparent when a job must be found for a specific student. Once a trainee has achieved most of his short-term goals in terms of productive output and emotional stability, he is considered for job placement. This is the responsibility of the program director. In developing a job for a trainee, his residence, interests and demonstrated abilities are considered first. The director then reviews available job opportunities appropriate for the trainee. The job search is accomplished by reviewing possibilities at companies in the area, the Indiana Industrial Directory and the yellow pages of the telephone book. Once a list of potential employers has been compiled, the director contacts a resource person in the community for an introduction to the personnel directors of the selected companies. The resource person is someone familiar with the community who is willing to assist. Out of ten leads, generally three potential job opportunities are uncovered. The director then visits the companies to describe the program and the individual and to analyze the job opportunities. After the job has been secured for the trainee, the director then transfers responsibility for actual placement and three month follow-up to the case manager - vocational teacher. The approach used by the director in trying to place the trainees is open and business-like. There is a frank discussion of the fact that the students are handicapped. Often the video tape of Aux Chandelles is used to acquaint potential employers with the handicapped. The economic aspects are stressed and advantages pointed out such as salary proportional to productive capacity, no theft problems, reliable workers.

Reducing the Perceived Risk to the Employer

In the Aux Chandelles program, the use of an intermediary from the community to make the introduction and the visit by the director to explain the student and the program help to increase the probability of developing appropriate job opportunities because they reduce the perceived risk to the employer as to what he may be getting himself into by hiring the student.

The concept of reducing the employer's perceived risk is well recognized by the staff of the Cooperative Vocational Education Program in Doylestown, Pennsylvania which places severely handicapped students in competitive employment. This program's primary distinction is its unique method of approaching prospective employers on a "no-risk" basis. One of five occupational training specialists offers the employer his services for approximately one week to learn the job. If placement in the job is determined to be appropriate for a student, he is selected as a trainee from one of the special classes. The individual is trained for 1-4 weeks on the job as necessary to acclimate him to the tasks and to the job environment. Employers seem to be particularly receptive to this approach because it minimizes the time that their company must spend training a new employee.

Through these efforts, 14 trainable mentally retarded students were placed in 1972-73 in jobs including assembler, armature winder, cosmetics packer and chipper/grinder. The program has made successful attemps to introduce moderately to severely retarded individuals to tasks at higher levels of difficulty in situations of competitive employment. In large part, this achievement is attributable to the "no-risk" approach which demonstrates commitment to the success of the student on the job.

The Special Vocational Needs program in Bellevue, Nebraska, uses a different approach to job development which is also aimed at making the prospective employer feel more secure about the capabilities of the students. The program has set up work stations in industry to develop a job market for future placements similar to the work stations used by the Aux Chandelle program. Students completing vocational training may be placed in competitive employment, sheltered workshops, day activity centers or work stations in industry. Work stations in industry are small training sites in various business locations. They are ordinarily established on a one trainer-to-eight trainees ratio. The trainer is responsible for skill training, social adjustment training, quality control of output and administrative duties such as payroll, contract bidding and contract billing. When the program set out to sell the idea of work stations to local businesses, it concentrated first on companies for which it was doing contract work in the vocational service centers. The program could offer an equal amount of work without the problems of shipping, receiving and transportation. Credibility with these employers had been established already. As far as performance and quality of work were concerned it was felt that trainees would be more responsive to the employers' immediate production needs working at their site.

The first work station in industry was with a manufacturer of grocery store shelving and fixtures in Omaha. Work stations have since expanded to include a community recycling facility, a pet food manufacturer and a motel maid service station. The program has found it best to have no more than one work station in each of the service industry areas so that the volume justifies eight trainees and one supervisor. Benefits from the work stations have been more efficient performance, a more "normal" training environment and accelerated integration of the retarded into the social flow of the community.

Job development in all three of the preceding cases was primarily a function of establishing communication with prospective employees and reassuring them that the students were indeed capable of performing the job. Bergen County Vocational School in Paramus, New Jersey, is a useful example of how job development or job search establishes communication links between the program and potential employers.

Job development is handled by the Cooperative Industrial Education Coordinator in a state-wide work-study program. Each vocational district in the state has at least one coordinator who is responsible for finding work-study jobs, placing students and follow-up. The coordinator seeks jobs for students who are ready to be placed in work study positions based on the level and area of their skill training. A job is sought for the student, not a student for a job.

Placement involves part-time work (maximum of 28 hours a week -- 20 hours during school -- 8 hours on Saturday) and part-time school. The scheduling of work is flexible. Some students alternate a week of school with a week of work. Others may work every afternoon and others may work 2 to 3 days and attend school the remaining days of the week. With this approach, problems encountered or skills found lacking on the job may be dealt with or compensated for at the school. The coordinator acts as a link between the employer and the vocational teacher and relays to the teacher the employer's evaluation of the student's on-the-job performance. The coordinator conducts a job search as part of the placement process. The coordinator seeks job placements for his "seniors" in vocational areas in which the individual students have received training. He personally visits each potential employer and discusses the particular student he is seeking to place. A job is sought that will result in permanent placement upon graduation. In seeking jobs, he uses former contacts and want ads. It is estimated that five to six employers are interviewed for each placement. The coordinator must also inspect the work station to see that safety measures are effective and that the position is appropriate to the student. If the employer is not familiar with the program, the coordinator discusses the program and its relationship to industry. If the employer indicates an interest in a particular student, the coordinator discusses the employment opportunity with the student. If the student is interested in the position, an interview is arranged. If the employer agrees to hire the work-study student, he is asked to sign an agreement of cooperation, which includes a clause allowing the coordinator to visit the placed student on the job. The employer is also asked to phone the coordinator if there are any problems rather than fire the student.

The effectiveness of this program is evident from the fact that, between 1969 and 1972, more than 80% of the students who left or completed the program were employed. The average length of time in the program was 2-1/2 to 3 years. Employers were generally pleased with the caliber of students produced by the program because the students are skilled in some aspect of their trade. Consequently, most students continue in full-time employment with the same employer following graduation. The work-study stituation allows the student and employer to assess each other prior to full-time placement. Job development and full-time placement become indistinguishable in this program because the student is allowed to demonstrate his capability and to earn a full-time job on merit.

CHAPTER 11

JOB PLACEMENT AND FOLLOW-UP

Job development involved setting up the transition of the student from the work-study environment to the world of actual employment. The next phase--job placement--effects that transition although the two phases overlap to some extent. It is a difficult transition for student and program staff alike. The ultimate test for any occupational program for the handicapped is what happens after a job is found for the student. The transition requires strong support for the student and continued supervision by the staff over a period of time. This sometimes takes an inordinate amount of staff time but it is time well spent. Placement and assistance to the student at that crucial point is as essential as classroom instruction. Effective programs provide adequate staff time for the job or effectively utilize other community agencies or both. The person who makes the placement must have familiarity with the student in order to anticipate problems in making the transition and sufficient time available to take swift remedial action if problems arise. As with job development, this requires a relationship of trust and confidence with the employer.

The Special Needs Program of the Calhoun Area Vocational Center in Battle Creek, Michigan, uses both its own staff and that of the vocational program into which its students are integrated to assist in placement. Placement at Calhoun Area Vocational Center is everyone's concern. The regular vocational instructors place many of their own students, in some cases even finding a job in the community and training a student specifically for it. Many instructors formerly worked for many years in industry and have many friends and contacts in their occupational area. Placement is one of the vocational instructor's regular duties. This is specified in their contracts. About 70% of placements are accomplished by the teachers. For the handicapped, often the special needs team, the district special education consultant and the Vocational Rehabilitation Service counselor provide assistance--either individually or jointly. About 20% of placements have been achieved by special needs team members. There is also a director of placement and a placement counselor. In addition to assisting with placement of students, the director also surveys the employment situation in each of the occupational training areas in the local communities and provides this information to the instructors and counselors. He effects about 10% of placements. Student capabilities are sold to employers. A student evaluation performed four times a year provides information on a student's specific job skills and is available to potential employers. Further, when necessary, special education consultants or special needs team members write recommendations for students and follow up with specific students.

Supervising the Transition

One of the most helpful sources of placement assistance is the vocational rehabilitation counselor in the area. The Roanoke County Occupational School in Salem, Virginia, has established such a strong relationship with the Division of Vocational Rehabilitation in its area that it is contractually responsible for the placement portion of the program. Prior to the beginning of this program, the Roanoke County School District contacted the Division and arranged a contractual relationship under which the Division assumed primary responsibility for counseling and placement services in return for office facilities and related services within the school where the program is located. The existence of resident vocational rehabilitation services and staff strongly supports close cooperation between the instructional program staff and the Vocational Rehabilitation counselors. The early establishment of a planning relationship between the two parties during the development of the program was instrumental in bringing about the commitment.

Placement in a position or in special training courses outside the program usually occurs at the beginning of the twelfth grade year, but vocational rehabilitation involvement in the student's progress begins much earlier.

1. Eighth and ninth grade: A medical examination is required and the counselor is kept aware of the student's progress during this exploratory phase by a copy of the teacher's evaluations. At the completion of the ninth grade, the counselor reviews the recommendations stemming from these vocational evaluations and discusses them with the parents and the student to reach a decision on an appropriate occupational area.

2. Tenth and eleventh grade: A progress chart from the student's teacher is provided to the counselor at least semi-annually throughout these two years. The counselor, in conjunction with the vocational teacher, usually begins reviewing students for placement during the eleventh grade.

3. Twelfth grade: On the basis of previous job surveys, past placement experience with employers and teacher contacts, the

counselor places most students in full or part-time employment which in most cases becomes permanent following graduation. The student may also be placed in special training courses offered by other organizations. Follow-up occurs for approximately 60 to 120 days after graduation.

This close association with the program allows the Vocational Rehabilitation counselor not only to perform placement-related services but also to act as coordinator/liaison with other outside organizations. Continuing follow-up, for example, is performed by a mental health services counselor approximately every six months. In each such case, the vocational rehabilitation counselor plays an important coordinative role. The Salem program has also made excellent use of community services and groups. Although the Division of Vocational Rehabilitation is responsible for placement, the program has ensured that teachers and counselors communicate prior to and during actual placement. The relationship with the Division of Vocational Rehabilitation has increased the available time of the program staff without sacrificing control over the quality of the jobs in which the students are placed.

The Vocational Individual Assistance Program in Eastlake, Ohio provides a useful example of how placement is affected in a program in which several school districts are participating in a centralized vocational program. The work-study coordinator in the student's home district is responsible for placement. This necessitates strong coordination with the vocational instructors at the centralized facility. The effectiveness of their placement efforts is reflected in the 95% successful placement rate of the program. Primary responsibility for placement lies with the work-study coordinators from each of the six cooperating meetings held with the vocational teachers, the counselor-evaluator and the work-study coordinator. They are held on a regular basis to determine the degree and rate of skill growth and the availability and applicability of employment for the student. First evaluation of all tenth graders is held during the second six weeks. The rate of learning is the determining factor in a student's probable eligibility for employment. The evaluation committee decides which tenth graders will be ready for employment during the final six-week period. During the fifth six-week period, those tenth graders designated at the first evaluation as being "probable" for employment are re-evaluated. At this time, a final decision is made concerning the immediate employability of those students. Tenth graders not evaluated during the fifth six-week period will be evaluated during the last six weeks. An evaluation is also held for juniors still in the program during the third six-week period. This evaluation determines whether any juniors should remain at the center during the second semester of their junior year. In almost all instances, juniors spend one-half day at the high school and one-half day in community work experience during the second semester. Most twelfth graders are employed full time. Many continue in the same work-study position they held during their junior year.

The work-study coordinators are responsible for visiting each student every other week to determine student progress and to handle any employer-employee problems. If a student is having difficulty on the job, which occurs 20 to 30% of the time, he returns to the center for remediation and further training. The work-study coordinators and the program director spend a great deal of their time cultivating contacts in local industries. The director is a firm believer in the value of face-to-face contact with local employers and encourages the work-study coordinators to spend as much time as they can in the field talking to potential employers. The periodic reviews of a student's progress and readiness for partial employment by the work-study coordinators and by the program's staff provide the basis for successful placement, because the work-study coordinator is aware of the student's abilities and problems. This awareness allows him to be particularly alert as actual placement takes place.

Follow-Up as a Key to Success

Just as the process of placing a student in a job begins with job development, so does follow-up of the student begin as the student is placed in a job. Many occupational programs for the handicapped fall down in this last phase of the cycle. They do not provide for adequate follow-up of students following placement. Yet this final effort provides assurances that the student will perform satisfactorily and progress on the job.

Initial follow-up visits help smooth the transition to regular employment and should provide information on progress and the potential for progress in the immediate job or others that might become available to the particular student. Information should also be obtained on the number of students placed as compared with the number eligible and how appropriate placement has been in relation to the skills and interests of the students. But more important perhaps is the use of follow-up information to evaluate the overall effectiveness of the program and to pinpoint weaknesses and strengths. Programs developing an effective feedback system are better able to make appropriate changes or modifications either in individual programs or in the overall service delivery system.

The cooperative follow-up efforts [illegible] County Occupational School, vocational rehabilitation, and [illegible] services in Salem, Virginia, is a useful example of multiple uses [illegible] follow-up information. Follow-up is performed by vocational rehabilitation counselors at least every two months throughout the student's twelfth grade year and up to 60 to 120 days following high school graduation. Continuing follow-up is performed by a mental health services counselor approximately every six months. The primary purpose of these follow-up visits is to ensure that the student or graduate is continuing to perform smoothly in his job and in social adjustment. The program also uses this information to satisfy its need for feedback on how well graduates of the program are doing.

The Work-Study Experience Program in Russellville, Arkansas collects evaluative information from employers as part of its follow-up of the work experience portion of the program. Both employers and program staff find the work adjustment inventory useful in evaluating the student's performance. The teacher-coordinator responsible for this small, but effective, program in northwest Arkansas administers six basic tests to his students at the beginning and the end of each school year to help him assess his student's progress and to adjust the program for the succeeding year to the demonstrated needs of the students. In addition to these internally administered evaluations, he and the rehabilitation services counselor who is assigned half-time to his students ensure external input to the program through the use of a work adjustment inventory. This inventory is a simple set of statements arranged in groups on a single sheet of paper with a rating scale to the right of the statement (See Exhibit 8). Employers of students in the work-study experience program are asked to complete this brief inventory periodically, usually quarterly, depending on the needs of the individual student. It is not used in lieu of personal follow-up visits, however. This simple-to-complete form does not require too much of the employer's time but does provide the teacher-coordinator and the rehabilitation services counselor with realistic third-party feedback about a student's performance on the job. This information is a useful complement to the internally administered evaluations when the teacher-coordinator attempts to redesign the program to address the needs of the students as those needs change. In this case, follow-up throughout the student's approximately two years of part-time work experience is used to alter the half-day of classroom work while the student is still in the program.

The Special Needs Program of the Calhoun Area Vocational Center in Battle Creek, Michigan, provides an example of evaluative follow-up

ARKANSAS REHABILITATION SERVICE
WORK STUDY EXPERIENCE PROGRAM
WORK ADJUSTMENT INVENTORY
EXHIBIT 8

Name________________________________ Date ________________
Period of Training ________________________ Days Absent ____________
Training Station __________________________ School District ___________

Statements	Unsatisfactory	Improving	Satisfactory	Good	Excellent
A. Attitude Toward Work:					
1. Sustained interest in work					
2. Desire to do work correctly					
3. Completes tasks					
4. Interested in learning new tasks					
5. Gets to work on time					
6. Comes regularly					
7. Accepts help					
8. Willingness to do same job repeatedly					
B. Work Habits:					
1. Works without continual supervision					
2. Follows simple verbal instructions					
3. Follows simple written instructions					
4. Makes decisions					
5. Plans and organizes work					
6. Works alone					
7. Works in a team effort					
8. Keeps work area neat and clean					
9. Works safely and carefully					
C. Physical Performance:					
1. Coordination					
2. Dexterity					
3. Endurance					
4. Physical capacity					
5. Speed of performance					
D. Work Abilities:					
1. Knowledge of tools, materials used on job					
2. Ability to use tools or materials					
3. Proper handling of tools or materials					
E. Personal Habits:					
1. Appearance in dress					
2. Personal hygiene (clean body, hands;teeth appear brushed, hair clean and combed)					
F. Social Adjustments:					
1. Accepts corrections and criticism					
2. Desires to please supervisor					
3. Gets along well with other workers					
4. Displays honesty					

of students having completed the program. An annual follow-up questionnaire on job status is sent to all students, including handicapped, who have completed the program the previous year. A telephone follow-up is made for those who do not respond to the questionnaire. In 1972, 97% of the graduates were included in the survey. This is the primary source of job placement and job retention data. Follow-up with specific students is done on an individual basis by the instructors, special needs team and district special education consultants. Often a student who loses his job will return to the center for advice and assistance from an instructor or counselor. The vocational rehabilitation service also provides follow-up services for the handicapped. When necessary, it opens a case on a handicapped person, assigns a counselor to the case and provides assistance or services.

CHAPTER 12

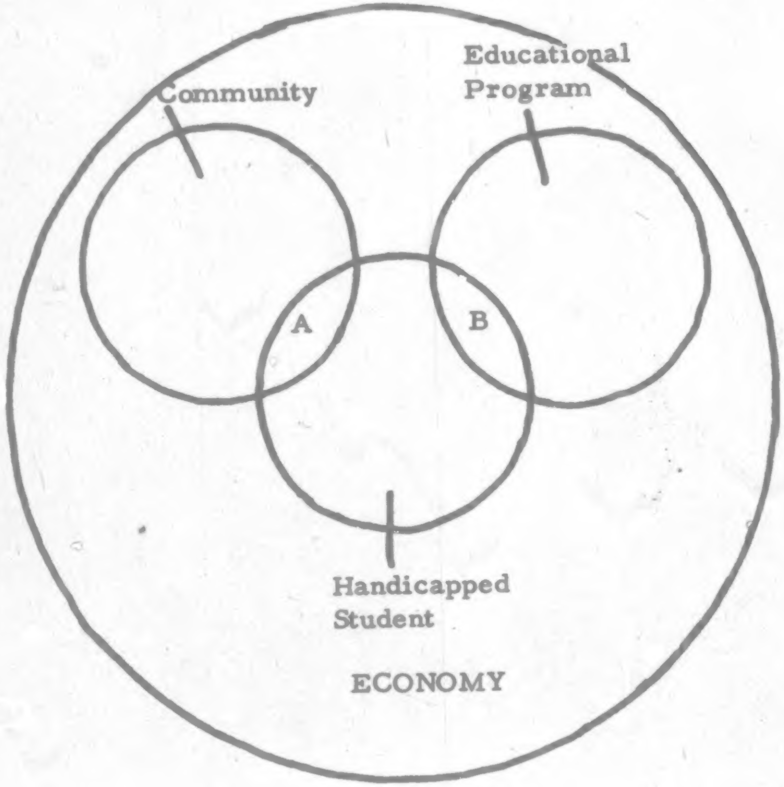
COOPERATION ON A BROAD FRONT

Fragmentation of efforts has made it difficult to bring about change and provide effective occupational services to the handicapped. Exhibit 9 shows the difference graphically between the usual situation and the desired situation. Segments A and B represent the student's involvement in the community and in some type of educational program. All too often the student represents the only liaison between the two. The desired integration between these groups exists only in the more effective programs. Segment C represents efforts by the program to involve the community in what it is trying to accomplish. Segment D is the most important of the four but the least frequently found. It represents the integration of factors that exist in the community with those of the program to relate specifically to the needs of the student. To the extent that segments C and D (particularly the latter) can be increased, the program will produce students more likely to achieve their potential. Achieving this integration requires inter-agency, inter-district and community coordination and cooperation.

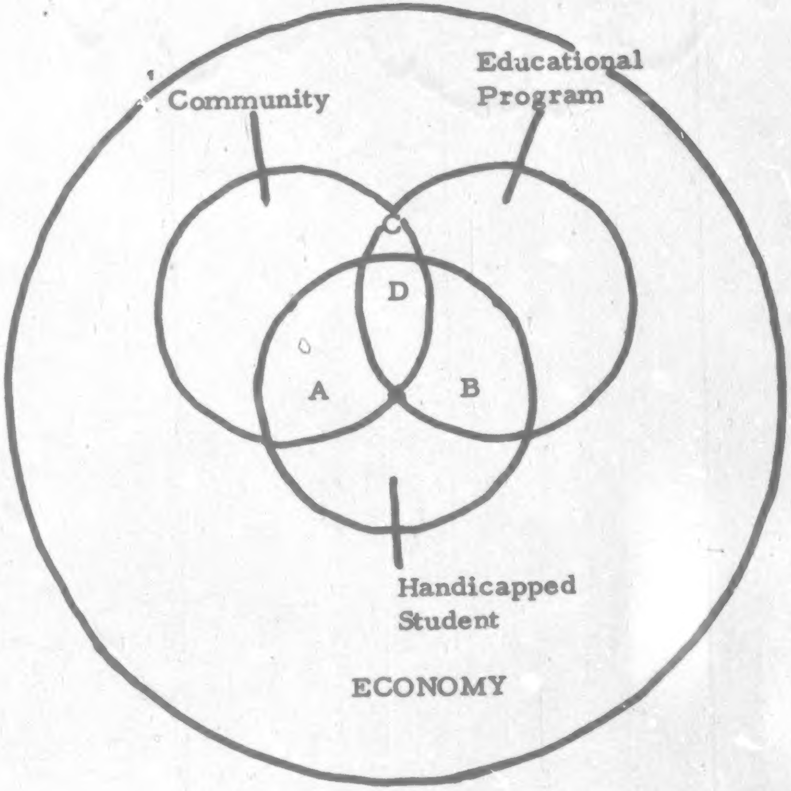
Inter-agency cooperation at the local level requires integration of at least vocational, special and vocational rehabilitation services. Each group has an audit or monitoring function, but each should also make a positive contribution to the program. For example, vocational rehabilitation was made an integral part of the Pre-Vocational Work Study Program at Peoria, Illinois. The Roanoke County Program at Salem, Virginia, integrated many different agency services successfully. It is evident from the experience of successful programs that inter-agency cooperation not only improves the quality of services when students are still in the program but smooths the student's transition from the program environment to the society in which he will live.

Broad inter-district or horizontal integration of services often makes it possible to provide occupational programs for the handicapped where they would have been beyond the means of an individual school district. The cost of education for the handicapped is higher than the cost of regular education. Occupational education is also more expensive than the normal academic courses provided by the public school system for the majority of students. The combination of the two into occupational programs for the handicapped is higher still. Fiscal cooperation among districts permits greater economic feasibility. This is particularly important in rural areas

Exhibit 9



Existing Integration



Desired Integration

which have less dense populations than urban areas and consequently a lower incidence of handicapped people. It is also important for the severely handicapped who usually exist in only very small numbers within any one school district. Bergen County, New Jersey, for example, a kind of "super district," provides services for many categories of handicapped for more than 70 school districts. The Vocational Individual Assistance Program of East Lake, Ohio, provides occupational programs for the handicapped on a divided day basis for five cooperating school districts. The Missoula Technical Center Program for the Handicapped in Missoula, Montana, serves the entire state.

The support, interest and assistance of various officials, agencies, groups and individuals will broaden awareness of the need for change and generate involvement which can yield "spin-off" benefits in terms of alternative methods of meeting student needs. In preparing the environment for the student, community understanding of the students and what the program is trying to achieve is essential. An effort must be made to attract community resources. The Vocational Village Program in Portland, Oregon, has drawn on and built community support by means of advisory committees. West Springfield, Massachusetts, involved a broad spectrum of community groups from the outset in setting up its Human Development Program.

Directors of special, vocational and vocational rehabilitation should see that they are providing mutual support and promote cooperation among their agencies. They should engage in joint programming. School superintendents should make sure that such cooperation takes place. If it does not, they should find out why and correct the situation. They can designate responsible people to look into the problem and schedule progress evaluations. Boards of Education should check on the Superintendent's plans. Board members also provide a window to the community and can help make the community aware of student needs and programs devised to meet them. Individual board members can go out into the community to encourage and promote needed changes and solicit support for programs. Parents can take an active role in making sure educational plans are written and help create community support and understanding. Instructors and teachers' aides should make sure programs are relevant to individual student needs and solicit support for them. Numerous programs already described have been successful in these efforts. It is important to note that almost all of the efforts of the programs mentioned previously were initiated and maintained by local program personnel. States can mandate change but nothing happens until it is put into effect at the local level. It is incumbent on the local staff to generate local cooperation on a broad front because it is only at that level that changes have an immediate and direct benefit to handicapped persons.

APPENDIX A

PROGRAM EVALUATION CHECKLIST

The checklist is simply a list of questions which can be used to evaluate programs of occupational education for the handicapped. In view of the wide variety of programs included in this study, programs of many types serving various groups of students with differing needs, all fifty questions in the checklist will not apply to any specific program.

Designing a Program

1. When did you last conduct or update a needs assessment and what was the result? Do you know the total size of the handicapped group you're serving? Are you knowledgeable about the environmental factors in your area?

2. What are your program's measureable objectives? Are they specifically oriented to assessing how well the program is actually increasing the level of independence of its students?

3. What function, if any, does your advisory board perform? What have you done to make it a positive contributor?

4. To what extent have you involved parents? How are they made aware of the student's problems and how they can help?

5. How thoroughly have you explored the availability of public and private resources to assist the students in the program? How active is outside participation in the program?

6. How actively have you combined resources with other districts to provide programs or specific curriculum offerings not presently available to your students?

7. What have you done to investigate the possibility of using the services or facilities of existing vocational-technical schools to serve your students?

8. What is your current planned program to serve the needs of your students? Is it adequate?

9. What provision does your current plan make for a comprehensive network of cooperative services for your students?

Identifying Students

1. To what extent have you established close working relations with outside sources of student referrals?

2. How actively do you seek out potential students (including those in institutions) who might benefit from your program?

3. How thoroughly do you assess the needs of students before entering them into the program? Who is responsible for this?

4. What information do you request for the pre-admission student assessment?

5. What explicit criteria for admission have you set up and are all students meeting these criteria admitted?

6. What post-admission evaluation and review do you provide before determining a student's educational plan?

7. To what extent do parents participate in post-admission staffings concerning their child's programming? How is their contribution used?

Meeting Student Needs

1. Does your program form part of a coordinated series of services? (i.e., Is your program coordinated with the service the student receives prior to entering your program and with those the student receives after leaving your program?)

2. How is responsibility for monitoring each student's progress clearly assigned? Who is responsible?

3. What techniques or measures do you use to determine a student's progress toward instructional objectives?

4. What pre-vocational preparation in such areas as personal and social skills, appreciation of the value and need for work in our society, vocational exploration, and general work-readiness training do your students receive?

5. How do you relate the needs of your students to the type of vocational training offered?

6. If your program is an institution, what have you done to improve cooperation with the local community to provide training in a more integrated environment?

7. How does the skill training curriculum for each student in your program allow the student to progress at his own speed from general to specific skills?

8. What have you done to make the skill training as close to an integrated working environment as possible?

9. How many vocational options are available to your handicapped students? Are all of these open to both sexes?

10. How is your vocational program adequately supported and reinforced by related instruction (vocationally oriented "academics")?

11. What preparation do your students receive in "life adjustment" skills such as social skills, dating, sex education, home living skills, budgeting and taxes, using public transportation?

12. What supportive services do your students receive in such areas as medical care, parent counseling, vocational counseling, social work services, transportation, recreation and leisure activities, residential living? How adequate are these services?

Placing the Student

1. What analysis of the job market in the community served by your program have you conducted? Do you know what opportunities exist for your students?

2. What efforts have you made to cultivate and maintain close working relationships with employers and potential employers?

3. What have you done to overcome the misgivings of some employers who may perceive a risk in hiring a handicapped person?

4. Does your program serve severely handicapped students? Is there an alternative to sheltered workshop placement? Why not?

5. Do you search for jobs to match your students' abilities and training? What job redesign or modification have you done?

6. Who has specific responsibility for placement? Is this clearly known by students and staff?

7. What assistance from your local vocational rehabilitation counselors do you receive and is it adequate?

8. How well have your follow-up procedures ensured that:(a) students continue to perform satisfactorily; (b) evaluative placement information is gathered; and (c) the program is adjusted as a result of the evaluation?

Managing the Program

1. How well do your program's staffing pattern and reporting relationships ensure that the needs of the students are best served?

2. What procedures do you use to identify and select the best qualified staff for your program? Have they been effective?

3. How do you encourage the staff's continued professional development, including in-service training?

4. How do you evaluate your staff?

5. What have you done to ensure the availability of well-documented student records to interested staff members?

6. What type of periodic evaluation of the program is conducted? Is the program changed as a result?

7. Is the evaluation used in annual planning for the future?

APPENDIX B

PROGRAM ABSTRACTS

Each program mentioned in the text is described below in alphabetical order.

Program: Aux Chandelles Vocational Training Department
Location: Elkhart, Indiana
Operated by: Elkhart County Association for the Retarded
Program Contact: Mr. Kenneth Swarzentraub
Director of Vocational Training
Elkhart County Association for the Retarded, Inc.
1000 West Hively Avenue
Elkhart, Indiana 46514
Phone: (219) 522-1580

The Aux Chandelles Vocational Training Department (VTD) is a vocational training program for mentally retarded persons, ages 18-21, in Elkhart County, Indiana. It is operated by Elkhart County Association for the Retarded and is one of many programs and services the association provides. The VTD is a sequential step in a systematic developmental program for the mentally retarded. Following completion of the special classes run by the public school system, the students move into the VTD program. The students served are trainable mentally retarded, lower level educable mentally retarded with additional emotional problems and severely mentally retarded who are adaptable. There are currently 18 trainees in the VTD, two classes of nine each. Since the program began in 1970, there have been 48 trainees who have completed the program (out of 58 entering); all have been placed in some type of employment. The program operates eleven months out of the year; most trainees stay in the program for two years.

The program has five components: intake; general work habit training; pre-training (for a specifically identified job opportunity); placement; and follow-along. The placement goal for each trainee is determined during the intake process; the goals and criteria for each are given below:

Competitive	- 60% or productive capacity; socially adaptable
In-House Work Station	- 40-60% productive capacity; corrective maladaptive social behavior
Work Activity	- 35% or below productive capacity; socially unaware

An Individual Program Plan (IPP) is formulated for each trainee according to the placement goal; the IPP is instituted during the general work habit training and pre-training phases. The IPP covers the five developmental areas of: motor, social, cognitive, affective, and communication. When the trainee meets the minimum objectives established in his IPP, he is considered job ready.

Placement is the responsibility of the director. He locates potential jobs, makes employer contacts and handles follow-along for employed trainees. Follow-along consists of maintaining employer contacts and of adult basic education evening classes for the employed trainee in basic academics, living skills and recreation activities.

An additional service offered is the home readiness program. In this program the teachers visit the home of severely mentally retarded adults without any school experience to assist the potential trainee for the upcoming adjustment to the VTD setting. Much of the time (approximately one hour per week) is spent working with the parents, training them to help their child themselves. Generally, one to three potential trainees are in the home readiness program during the year.

Program. Bergen County Vocational School - Paramus
Location: Paramus, New Jersey
Operated by: Bergen County Vocational School District
Program Contact: Mr. Michael Del Conte, Principal
Bergen County Vocational School
Pascack Road, Paramus, New Jersey
Phone: (201) 261-5355

The program is an outgrowth of an earlier program still in operation in Wood Ridge, New Jersey, serving 120 students and originally run by this program's director until the Paramus program began in March, 1972, for 160 students. Both programs were begun and financed jointly by the Bergen County Vocational School District with financial assistance from various state and federal sources, the primary one being the State Department of Vocational Education. Continuing financing of operations is balanced among the school district, tuition from participating school districts and state reimbursement under special education and vocational education legislation.

The expected handicap distribution of the 160 students served by the Paramus program is 60% educable mentally retarded, 20% neurologically impaired and 20% emotionally distrubed. The students served roughly match those proportions with the exception that perhaps 20% are emotionally and socially maladjusted. Eligible students must be residents of Bergen County between 14-20 years with one of the above handicapping conditions.

The program is broken into three basic steps over a variable period of 1-5 years per student depending on the student's needs. The first step is the vocational evaluation or exploratory phase. The second step is vocational shop placement with a half day of academics in order to develop a saleable skill. There are ten occupational areas offered. The third step is the Cooperative Industrial Education program in which the student is placed in part-time school attendance and gradually moved toward full-time employment which is "graduation." The average length of stay in the total program is 2½ to 3 years per student.

The program staff is large with classes less than or equal to ten students. Average operating cost per student year is $3,000.

Program:	Calhoun Area Vocational Center (CAVC)
Location:	Battle Creek, Michigan
Operated by:	quasi-autonomous; technically part of Battle Creek School District; close coordination with Calhoun Intermediate School District (county)
Program Contact:	Mr. J. Patrick Egan Director of Special Needs Calhoun Area Vocational Center 475 East Roosevelt Avenue Battle Creek, Michigan 49017
Phone:	(616) 962-5454

CAVC is one of twenty-five area vocational centers established by the legislature in Michigan to provide job training for high school students. CAVC was one of the earliest centers, beginning in September, 1970 and currently has taken over the responsibility for the special needs component (handicapped and disadvantaged) for a neighboring center. CAVC serves the entire Calhoun County area; all fifteen school districts within the county sent junior and senior high school students to the center for vocational training. Student selection is done by the high schools themselves based upon their knowledge of the center's program offerings and the desires and capabilities of their students. As a result, the CAVC considers itself an extension of the school districts rather than a separate entity. Very close working relationships exist with the local high school counselors, consultants from the Intermediate School District and the vocational rehabilitation services.

The CAVC serves all students, i.e., normal, disadvantaged and handicapped, without distinguishing among them. They attend their home high schools half a day for academic training and CAVC half a day for vocational training. Handicapped and disadvantaged students are fully integrated into the CAVC classes; they are not identified separately and in many cases are unknown to the vocational teachers. Students requiring special assistance are referred to the special needs team for remedial reading, math work, and vocational and personal counseling. The special needs team services are open to all students, but the bulk of the students receiving their attention are handicapped or disadvantaged.

There are nine members of the special needs team at the CAVC and the equivalent of three and a half of them work primarily with the handicapped. The special needs program for the mentally and physically handicapped began operation in January 1972, with a grant from the Vocational Education Division of the Michigan Department of Education. This grant has been renewed annually. Currently, there are 97 handicapped students being served by the special needs team out of a total CAVC enrollment of approximately 1,340.

CAVC has a new, modern and well-equipped physical plant with a great deal of equipment, machinery and materials for training the students. The cost of building and equipping the facility in 1970 was approximately $4.5 million. Twenty-six occupational areas are offered. The training is made as realistic as possible. For example, the building trades program builds and sells two houses ($30,000-35,000 price range) per year, the auto body program buys wrecked cars, rebuilds them, sells them at a sufficient profit to operate the program at no cost.

The center has had a very high ratio of job placement for students completing its training programs. In 1972, 95% of all graduating special needs students were employed.

Program: Cooperative School Rehabilitation Center (CSRC)
Location: Minnetonka, Minnesota
Operated by: Joint Independent School District 287
Minneapolis, Minnesota
Program Contact: Mr. Richard Henze, Director
CSRC
6025 Eden Prairie Road
Minnetonka, Minnesota 55343
Phone: (612) 935-7791

CSRC is operated on behalf of the western metropolitan area by Independent School District 287, the Suburban Hennepin County Area Vocational-Technical Schools. The center was begun in 1965 by the Educational Research and Development Council of the Twin City Metropolitan Area, Inc. with the help of a project grant of vocational rehabilitation funds. The center is a public school, special education facility.

The center serves "less able" mentally retarded adolescents with an average IQ around 50 who cannot be appropriately educated in the special education programs of the home school districts. The majority of the students have IQ's in the 30-50 range. A significant number are multi-handicapped. Each district makes its own decision on whom to refer to CSRC and provides for tuition and transportation. Students are bused to the center from their homes each day. Students come from ten school districts in addition to the thirteen which comprise District 287. Eleven of the students are the fiscal responsibility of school districts outside the western metropolitan area. About one-third of the students are residents of Minneapolis.

The program is individualized according to the students needs, potential and progress. Each student is assigned to a case manager, who is responsible for the student's program, counseling, evaluation, placement and follow-up. The educational program of CSRC is a high school equivalent, adapted to the learning needs of the retarded and with a strong vocational emphasis. A major program objective is to maximize each student's opportunity for reaching competitive employment or for attaining the highest level of self-sufficiency of which he is capable.

The District operates its center on the grounds of the Glen Lake Saritorium in buildings provided by the State Department of Welfare. The second of the two center buildings was recently remodeled with the help of funds granted through the State Division of Vocational Rehabilitation from federal sources and from an appropriation by the state legislature in 1969.

Classrooms, work laboratories and specialized learning programs are provided. The techniques and resources of special education, vocational education and rehabilitation are utilized. Each student attends five or six different program areas each day selected from the 34 program options available. Enrollment in the center in 1972-73 was about 300. Referrals to the center have steadily increased.

Nine case managers and thirty-six teachers constitute the teaching staff. They are supported by four administrators and six clerical staff. Cost per student year is approximately $2, 400. School districts not in District 287 pay a yearly tuition of $1, 500 per student.

Program: Cooperative Vocational Education (CVE)
Location: Doylestown, Pennsylvania
Operated by: Intermediate Unit No. 22
Doylestown, Pennsylvania
Program Contact: Mr. Raymond B. Greer, Director
Cooperative Vocational Education
County Administrative Building
Doylestown, Pennsylvania
Phone: (215) 348-2940 extension 60

The program is primarily a job identification, placement, on-the-job training and follow-up program for moderately to severely handicapped students. It was begun in July, 1972, under a demonstration grant from the Division of Vocational Education, Department of Education for the Commonwealth of Pennsylvania (Vocational Education Act, 1968 Amendments) and has been conducted by Intermediate Unit No. 22, an organizational level between the state and 13 local school districts.

The largest proportion of the approximately 56 children served are trainable mentally retarded with an IQ range of 30-50. There is a small number of severely physically handicapped children who were included in Fiscal Year 1973. Trainees are selected from special classes run by a sister program which provides the classroom portion of the students' preparation prior to their participating in CVE.

The program's primary distinction is its unique method of approaching prospective employers on a "no-risk" basis. The occupational training specialists of whom there are five, offer the employer his or her own services for approximately one week to learn the job. They then select a trainee from the special classes and train the individual for one to four weeks as necessary to acclimate the trainee to the tasks and to the job environment. The employers are particularly receptive to this approach because it minimizes the time they or one of their employees must spend training a new employee.

Program staff consists of the five occupational training specialists and the director plus additional assistance. Cost per student year for those students participating in placement attempts was $2, 750 for Fiscal Year 1973.

Program: Development of Vocational Education (DOVE)
Location: Huntington, West Virginia
Operated by: Cabell County Board of Education, Huntington,
Huntington, West Virginia
Program Contact: Mrs. Irene Nenni, Coordinator
Vocational Education for the Handicapped
2800-2850 Fifth Avenue
Huntington, West Virginia 25702
Phone: (214) 529-2447

The project is a six-year, comprehensive program serving 157 primarily educable mentally retarded and learning disabled students from the city of Huntington and Cabell County, West Virginia. The program operates in a centralized facility and provides the occupational education alternative to students enrolled in the county's special education program.

The project began in 1970 with a nine-month research grant from the state Department of Special Education to design a vocational program for the handicapped in the Fairfield school which, since 1963, had been used for secondary special education classes. Implementation started in 1971-72 with 50/50 funding from county and state sources. State funding came through a joint agreement for provision of services for a five-year period. The total annual operating budget is now $83,238 with 17%, 24%, and 59% from local, state and federal sources respectively.

The program's general objective is to provide training to develop saleable entry level skills through a program including pre-vocational job awareness, work exploration, skill training and job placement and follow-up. Students come primarily from five elementary centers, are tested by the county psychologist at entry, receive academic and vocational training from special education and vocational instructors and are usually placed through vocational rehabilitation. There is also a post-secondary training and transition program. There are resident representatives from vocational rehabilitation and vocational education in the school.

The staff consists of 24 full-time equivalent staff, 17 of whom are teachers. There is a DOVE project director, the school principal, and the Vocational Rehabilitation staff consisting of four persons. Annual per student cost is $530.

Program: Employment Orientation
Location: Sicklerville, New Jersey
Operated by: Camden County School System
Program Contact: Mr. Louis Sarandoulias
Director of Special Needs
Box 566 Berlin Cross Keys
Sicklerville, New Jersey 08081
Phone: (609) 767-7000

The division of special needs is one of three divisions (the other two are the regular division and the evening division) at the Gloucester Township Campus, one of Camden County's two vocational-technical schools.

Although the main thrust of the program is to place students into non-handicapped vocational classes whenever possible, the program does operate separate special needs classes and vocational cluster shops where students are taught basic skills while their potential for integration into regular vocational classes is evaluated.

The Employment Orientation Program serves a wide variety of students. Of the 171 students enrolled in 1972-73, 87 were educable mentally retarded, 29 had specific learning disabilities, 16 were emotionally distrubed, 1 had a visual handicap, 2 were hard-of-hearing, 1 was speech impaired and 34 were classified as disadvantaged. Seven of the 171 were multi-handicapped. Until recently the program had been able to accept tuition ($300 a month) students from surrounding counties, but lack of room now prohibits this.

In the special needs vocational program, there are four shops, each built around the cluster concept. The four shops are small engines, food and business, building trades and plastics.

The program is staffed by a director, 11 teachers, a cooperative work-study coordinator, a special needs counselor and a child study team.

Program: Human Development Program
Location: West Springfield, Massachusetts
Operated by: West Springfield Public Schools
West Springfield, Massachusetts
Program Contact: Mr. Chris Grammaticus, Superintendent of Schools
West Springfield Public Schools
20 Central Street
West Springfield, Massachusetts 01089
Phone: (413) 732-4147

The program is housed in West Springfield High School. Originally begun under a demonstration grant from vocational rehabilitation in 1965, it has been financially supported by the public school system since 1968. The program has the capacity to serve 60 full-time educable mentally retarded students with an IQ range from 51-79. Some of the students also have secondary handicapping conditions. The program accepts students into a four-year program at a minimum age of 15½ (the age at which they are eligible for vocational rehabilitation services) on the basis of referrals through the Director of Special Services for West Springfield Public Schools. Referrals may come from the host school system or from the smaller community school systems surrounding West Springfield which send some of their students and contribute approximately $1,100 per year tuition for each student. A battery of diagnostic and evaluative tests is administered to each referred student to determine the appropriateness of the program for the student.

Students admitted to the program are given two years of academic instruction with strong occupational orientation. The third year consists of a three-week rotation through three separate learning and evaluation laboratories (food service, health service, and clerical/sales) for one week each in each cycle supplemented by two academic classes per day. Following completion of the third year, the student is placed in either paid on-the-job training with a local employer or sent to a special vocational training school. At the end of 12 months, the student receives a regular high school diploma with the graduating senior class.

Program staff consists of three laboratory and two academic instructors, a social worker, a vocational counselor and two full-time equivalent administrative/clerical people. The vocational counselor also receives placement assistance from the local vocational rehabilitation counselor. Cost per student is approximately $1,500-$2,000.

Program: Keefe Technical High School Special Needs Program
Location: Framingham, Massachusetts
Operated by: South Middlesex Regional Voc-Tech School District
Program Contact: Mr. Walter A. White, Director of Special Needs
South Middlesex Regional School District
750 Winter Street
Framingham, Massachusetts 01701
Phone: (617) 879-5400

The program (formerly the Lawrence school project) began operating in September, 1970, under a $150,000 grant from the Massachusetts

Department of Education from allocations under the 1968 Amendments to the Vocational Education Act. An earlier grant of $27,000 (Title III, 1963 Vocational Education Act) was used in 1967-68 to prepare the proposal for the subsequent Title VI, Elementary and Secondary Education Act, grant.

The program began operation with 30 students and is currently serving 50 full-time trainable mentally retarded students. Some 40 new slots will be created for educable mentally retarded and learning disabled students. This program accepts students at age 16 with IQ's ranging from 30-65 on referrals from local school districts, parents and vocational rehabilitation. It serves a primary area including Framingham and three surrounding towns. Students outside this area may attend at a cost of $2,000 per school year. This cost is borne by the sending school district.

Some diagnostic testing is done at entry, but students are accepted with only a current IQ test and referral records. Students entering the two-year program undergo four phases of training. The first phase is a trial period of 24 weeks during which the student is exposed to four vocational areas (hotel/motel, nursing services, food service, maintenance) spending six weeks in each. Half the time is spent in functional academics and the other in one of the vocational areas. At the end of phase one, the student is evaluated and usually formally accepted. He is placed in Phase two where he receives more training in the vocational area in which he demonstrated the greatest potential and spends at least two weeks in three on-site training positions. Following phase two training, the student is placed in a part-time unpaid job training site where he is assisted by his instructor. The student is considered to have completed the formal program when he has successfully spent 12 weeks in a position without major difficulty. Replacement is still possible if he encounters problems after the trial period. Follow-on counseling services continue in the last or phase four.

The program staff consists of the director, two counselors, two resource teachers, a teacher's aide, four vocational instructors and a secretary. Cost for a ten-month school year is approximately $2,300 per student.

Program: Laradon Hall Training and Residential Center
Location: Denver, Colorado
Operated by: Laradon Hall Society for Exceptional Children
Program Contact: Mr. Lewis E. Kitts, Director
East 51st Avenue and Lincoln Street
Denver, Colorado
Phone: (303) 897-0234

Laradon Hall is a private non-profit center for retarded children and young adults founded in 1948. Its vocational program began in 1959. Although originally founded as a school for trainable mentally retarded individuals, Laradon's vocational program primarily serves educables. In addition, the center operates a sheltered workshop for trainables. The financial mainstay of Laradon is the Elks organization with income also derived from vocational rehabilitation, fees and income from contract work performed for local businesses.

Laradon enrolls approximately 100 in its vocational program each year and accepts 90%-95% of referrals. After an eight-week evaluation period, the trainee is given general vocational training and then is placed in one of four occupational training areas -- laundry, food service, warehouse or custodial. A comprehensive range of supportive services is available. Follow-up after job placement is intensive and can be prolonged as necessary.

A distinctive feature is the phased residential program, whereby trainees progress in stages from dormitory living to totally independent community living.

Program: Maryland School for the Blind
Vocational Education Project for Blind Children and Youth
Location: Baltimore, Maryland
Operated by: Maryland School for the Blind
Program Contact: Isaac P. Clayton, Project Director
3501 Taylor Avenue
Baltimore, Maryland 21236
Phone: (310) 444-5000 extension 230

The project currently has an enrollment of 150 legally blind students, ranging in age from 12 to 22. As it exists now, the primary component of the program is work-study. Two vocational courses of study are taught, one in piano tuning and the other in medical transcription.

The population the school serves is slowly changing from the academically able to those who would benefit more from a vocational education. Therefore, the school is slowly evolving into one with a more vocational emphasis. Three phases of development have been planned. The first phase recently completed was a six-month survey fo 2,000 employers in the State of Maryland. The survey was focused on the present and future occupational opportunities for the visually impaired. The project also surveyed former students with the finding that one-third were gainfully employed, one-third were full-time students and one-third were unemployed.

The product of the first phase will be a curriculum for vocational education for the blind. Phase two will establish a pilot vocational education program to demonstrate the curriculum developed in phase one. Also included will be an evaluation of the effectiveness of the curriculum and of the pilot program by examining the work histories of those who have completed the program. Phase three will consist of the development of a comprehensive vocational education center.

The work study program, a component of the planned program, has started operation as an interim measure to provide some occupational services.

Program: Missoula Technical Center Program for the Handicapped
Location: Missoula, Montana
Operated by: Missoula Technical Center
Program Contact: John Giese, Director of Federal Programs
901 South Avenue West
Missoula, Montana 59801
Phone: (406) 728-2400 extension 258

The program provides vocational training to college-age students and adults throughout the low-population State of Montana. More than 15 percent, or about 100 students of the total enrollment, have some mental or physical disability. There are a number of multi-handicapped enrolled and most handicapped trainees are over the age of 21. The program is directed toward full-time employment in a normal work environment and the handicapped are integrated with regular vocational students.

The Center which opened in 1970, has an open enrollment policy and applicants are not screened as to handicaps. They are referred by State Rehabilitative Services, Visual Services Division, Speech and Hearing Clinic, Mental Health Clinic or other agencies which take part in the program. The program acts as liaison among these agencies, students and instructors and provides curriculum, placement and follow-up services. It is funded out of the regular school budget.

The most notable feature of the Missoula program is that it has demonstrated the ability of some handicapped students to perform skilled jobs if given the training and opportunity to work. The advanced vocational areas in which handicapped students have achieved success include aviation, business and office, electromechanical, data processing, forestry, heavy equipment, mid-management, small engine repair, welding and road construction. Students progress at their own rate and handicapped students are apt to try different programs before they find one that suits them. This is encouraged as a valuable experience in occupational exploration.

The staff of 42 vocational and other teachers utilizes diversified methods of special study and educational materials, including textbooks on cassettes, and sound-on slide series. Close work arrangements with occupational therapists are maintained. There is a coordinator of special services for the handicapped. But the school attributes its success primarily to the spirit of the staff which shows a special interest in handicapped students. Most students were still in training but 15 had been placed in full-time employment by the 1972-73 school year.

Program: New Opportunities for Work (NOW)
Location: Findlay, Ohio
Operated by: Hancock County Joint Vocational School
Program Contact: Doris Stone, Program Coordinator
141 East Hobart Avenue
Findlay, Ohio 45840
Phone: (419) 422-6121

The program serves educable mentally retarded and hearing-impaired students in Hancock County, Findlay City and the Carey Exempted Village Schools in Wyandot County. The program is supported by state vocational and special education funds and federal Vocational Education Act funds, local school funds, plus donations from private sources and earnings from workshop contracts. The program is administered by a Joint Vocational School Board formed by the Hancock County Board of Education and the Findlay City Board of Education. Students from six school districts (seven schools) in the county and a high school and a junior high in Findlay City attend the program.

Several levels and types of services are provided by the program. Prevocational workshop classes are provided to junior high and freshmen students. Vocational training in four occupational areas (clerical, food service, building maintenance, and auto maintenance) is available to sophomores and juniors. There are three types of work experience: part-time on the job laboratories, part-time employment and full-time employment in the senior year. All students must have 37 weeks of full-time employment prior to graduation. Related academic instruction, counseling and evaluation are provided during all phases of the program.

A unique aspect of the program is that the special education academic teachers in the self-contained home classrooms accompany the students to the pre-vocational workshop and the vocational training centers. They work alongside the pre-vocational and vocational teachers as related instruction teachers for the half-day the students are at the NOW facilities.

In the 1972-73 school year, there were 168 students in the overall program. Of these, 16 graduated and four dropped out of the program. Of the 16 graduates, 14 became competitively employed, one went on to additional training and one went into the military. Of the four dropouts, two were married and became housewives, one is not working and the status of the fourth is unknown.

Program: New York State School for the Deaf
Cooperative BOCES Program
Location: Rome, Utica, New York
Operated by: New York State Department of Education
Program Contact: Mr. J. Jay Farman
401 Turin Street
Rome, New York 13440
Phone: (315) 337-8400

The New York State School for the Deaf (NYSSD) is a K-12 five day per week school for the deaf with 200 resident students and 70 day students. A group of 18 senior high students are now attending regular vocational education classes operated by the Region 7 Board of Cooperative Educational Services (BOCES) in Utica, New York. NYSSD was established in 1886 as a year-round resident school. It started the cooperative BOCES program in 1971 and plans to increase participation from the present 50% of eligible population to 80% in 1973-74.

The NYSSD curriculum serves three identifiable groups: a small group of students in the college-prep curriculum, a majority group in career development and a third group attending BOCES classes. All students participate in the career development program which is a pre-vocational work exploration program. It includes a series of life adjustment courses in subjects such as social security, job hunting, and "The Deaf Person and the Law."

The staff consists of 59 teachers; 2 administrative and 5 clerical personnel; and approximately 140 support staff. Funding has been mainly from the State Department of Education with small grants from ESEA, Title I and Title VI sources for curriculum development, bus service, and equipment. Per student cost is $1,050 per year.

Program: On-Campus Vocational Education
Location: Los Angeles, California
Operated by: Los Angeles City Unified School District
Program Contact: Mr. Donald Schmalzried, Occupational Training Consultant
H-107, 450 North Grand Avenue
Los Angeles, California 90012
Phone: (213) 687-4781

The program consists of occupational skill training, pre-vocational training, and counseling and placement services provided for students at three special high schools (Marlton, school for the deaf; and Widney and Miller schools for the orthopedically handicapped) in Los Angeles. The total student population at the schools is 1, 300.

The program has been in operation for four years, and about 540 students in the three high schools were served in 1971-72. Financing is provided by the school district, by state special education funds and by federal vocational education funds.

Pre-vocational exposure to the vocational areas is given to all 7th and 8th graders. They are rotated through each of the vocational areas in their school for one hour periods lasting 10 weeks per area. In the 9th and 10th grades, the students are offered more intensive vocational skill training for two-hour periods. The 11th and 12th year may be spent continuing in the two-hour class in the high school or at a regional occupational training center, in work experiences with private employers or at the Spastic Children's Foundation. The remaining periods are spent in academic and physical education classes.

The occupational areas offered are food service, graphic arts, plastic (industrial), power sewing (Marlton), jewlery (Widney), business service (Marlton and Widney), metal shop and small engine repair (Widney), agriculture (Widney) and art (Widney). The classes are well-equipped and spacious. The individual teacher develops his or her own instructional method and material and any special jigs required to accommodate the handicapped students.

During the senior year, the students are provided vocational counseling. If a student has potential for employment, he is referred to the Department of Vocational Rehabilitation for placement and for additional services. Placement services are also provided by the school district.

Program: Pre-Employment Vocational Experience Program
Location: South Bend, Indiana
Operated by: South Bend Community School Corporation
Program Contact: Mr. James W. O'Hara, Supervisor
635 South Main Street
South Bend, Indiana
Phone: (219) 234-8184

The South Bend Community School Corporation has conducted a Pre-employment Vocational Experience Program (PVE) for educable mentally retarded and disadvantaged students since 1966. The program has a combined total of 25 classrooms in nine junior high and five senior high schools in the city of South Bend and St. Joseph County. Presently-enrolled students number 404.

Four main features characterize this program. The first is the use of team teaching allowing the teacher-counselor (as all teachers are called) to perform placement, follow-up and testing activities during the school day. Secondly, the "control center," a physically separated part of the classroom, houses a regular telephone used for placement, crisis management and parent conferences. Logs are kept on all phone calls and conferences. Thirdly, the "PVE" hour is a period which can be scheduled in any part of the school day at the discretion of the teacher and can be used for on-campus work-study or off-campus job-site training. The fourth feature, the planning period, is the last hour of the regular school day and is used by the teacher to schedule conferences, for self-study or bi-weekly staff meetings.

The program includes grades 7-12 with emphasis on remediation of learning skills and social behavior in grades 7-9, and on social behavior, following directions and job skills in the senior high grades. Off-campus job trials and training occur in the 10th, 11th, and 12th grades progressing from two-hour lunch-time jobs in the school cafeteria in the sophomore year to possible full-time employment in the senior year. Students are trained and encouraged to seek their own job opportunities.

Testing is performed by the psychological and counseling branch of the South Bend Community School Corporation. Referral is by classroom teacher or school psychologist with the largest number of students coming from elementary programs for the educable mentally retarded.

The staff consists of one supervisor, three department heads, 21 teacher-counselors and one secretary. Cost for a ten-month school year (1972-73) was $928/student.

Program:	Pre-Vocational Work-Study Program
Location:	Peoria, Illinois
Operated by:	Peoria Public Schools, District #150
Program Contact:	Mr. David Berto, Coordinator of Special Education 3202 North Wisconsin Avenue Peoria, Illinois 61603
Phone:	(309) 672-6775

The program serves the educable mentally retarded (EMR) and is located in Woodruff High School, a regular high school of 1,200 students. It serves all the EMR high school students (156 in 1972-73) in Peoria Public School District #150 (Peoria City). The program is supported by a joint agreement among District #150, Illinois Office of Public Instruction, Division of Vocational and Technical Education and Division of Vocational Rehabilitation.

The objective of the program is to provide the student with the capability to work rather than to instill specific occupational skills. Freshman and sophomore students receive a full day of classes which are both academically and vocational oriented. A "mini-shop" provides one period of "hands-on" work activities for sophomores and for some juniors and seniors and serves as a transition between the classroom and on-the-job experiences. The summer before the junior year, students enroll in work evaluation and training program, where a student is further exposed to work under close supervision. During the junior and senior years, the students attend classes during the mornings and work part time at jobs at school or in the community in the afternoon.

All students are classified according to school grades and according to levels of ability (sections). The students have regular homerooms (15 minutes) and are integrated with regular students in physical education and study-hall. They are scheduled and moved from class to class during the day like regular students. They are allowed to take courses in the "regular division" if they want and if the special education department approves.

The program has diagnostic teams, work coordinators, a vocational counselor who provides placement upon graduation and follow-up.

In the 1972-73 school year, of the 19 graduates of the program, 14 (74%) are in competitive employment, two (11%) are attending college or other training, one (5%) is in a sheltered workshop, one (5%) moved out of the area and one (5%) quit his job.

Program: Roanoke County Occupational School (RCOS)
Location: Salem, Virginia
Operated by: Roanoke County Public Schools, Salem, Virginia
Program Contact: Mr. Rolland L. Krieder,
Unit Vocational Rehabilitation Supervisor
5937 Cove Road
Roanoke, Virginia
Phone: (703) 563-9945

The program is a comprehensive vocational program serving educable and trainable mentally retarded students including some with secondary physical handicaps. Students range from age 13-21. The program is housed in a two-year-old facility build specifically for special needs vocational education. The program was formerly housed in an older building which had a capacity of approximately 125. Since moving to the new facility, enrollments have increased to 260. The program is administered under an arrangement between vocational rehabilitation and the local school board for the Roanoke County area under which vocational rehabilitation services are contracted for by the county on a long-term basis. Vocational rehabilitation receives partial salary funding and office facilities in return for providing resident services.

The curriculum provides pre-vocational preparation for grades 7-8, work exploration and evaluation in grade 9, work habit and skill training in grades 10-11 and work experience in grade 12. The trainable students work adjustment curriculum started in 1972-73 is designed to train students in a semi-protective environment to make them personally independent in everyday life.

Placement is handled by the vocational rehabilitation unit but some placements are made by a county placement counselor who serves all vocational-technical schools. Diagnostic and evaluative work is done by the school district's pupil personnel department. Follow-up is done by vocational rehabilitation for the first sixty days after placement and mental health services thereafter.

Funding currently comes from the State Department of Education, Trade and Industrial Education, Roanoke County Schools, Title I, ESEA, Roanoke Valley Mental Health Services and local donations. The total operating budget for 1972-73 was $402, 015 or $1, 540 per student.

The staff consists of $40\frac{1}{2}$ full-time equivalent personnel: $2\frac{1}{2}$ administrative, 20 non-vocational teachers, 9 vocational teachers, 5 vocational rehabilitation and counseling persons; and $3\frac{1}{2}$ equivalent clerical personnel.

Program: Special Vocational Needs Program
Location: Omaha, Nebraska
Operated by: Educational Service Unit #3
(a four-county regional educational service center)
Program Contact: Mrs. Sherry Harvey, Director
114 West Mission
Bellevue, Nebraska 68005
Phone: (402) 291-0373

This is a cooperative program with the Educational Service Unit #3 (a regional educational service center supported by four counties), three public school districts and a vocational center operated by the Eastern Nebraska Community Office of Retardation. In its third year of operation, the program is funded by vocational education, vocational rehabilitation and local funds. It serves mentally retarded students in the rural-suburban, four county regions excluding the City of Omaha.. In 1971-72, there were 86 students enrolled in the program.

The program consists of pre-vocational training in the public schools (phase one) for students starting from age 13 and a vocational training program (phase two) at a vocational service center for students starting at about 16 years of age. Phase one intermixes functional academics with work adjustment training in individualized work stations and paid contract piece-work. Phase two provides intensive evaluation, functional academics, training in survival skills and grooming, community exposure, socialization, motor and minipulative skills training, counseling, paid contract work, work adjustment, placement and follow-up. Work skills are taught in areas such as simple assembly, janitorial and laundry. Behavior modification techniques are employed in both phases and precision teacher techniques are employed in phase two.

Program: Vocational Individual Assistance Program (VIAP)
Location: Eastlake, Ohio
Operated by: Willoughby-Eastlake City Schools
Program Contact: Mr. Don Schonauer, Director
33505 Curtis Boulevard
Eastlake, Ohio 44094
Phone: (216) 946-5000

VIAP is an academic and vocational training program for educable mentally retarded high school age students. The program currently serves 117 students from five cooperating school districts and is 36 weeks long. The budgeted operating cost for Fiscal Year 1974 was $174,000 of which $139,420 was to come from state funds and $34,580 from the school districts.

Five vocational areas are offered: automotive repair, clerical, factory production, custodial and welding. Typically, students begin with a period of orientation during the 9th grade, during which time the student's abilities and interests are assessed. These students attend VIAP for 1½ hours a day. The remainder of the day is spent at the home school in special education or regular academic classes. During the 10th and 11th grades, on-the-job training and/or work experience gradually replace VIAP training so that by 12th grade the typical student is working full time. The program is individualized; students are allowed to progress at their own rate.

Within each of the five vocational areas, skills are organized into "clusters." A student's progress is monitored as a student moves from cluster to cluster with each advance increasing in the level of difficulty. Students may remain in the program as long as progress is being made in achieving success in the training area or a job placement is secured.

The present staff is composed of six certificated teachers and three instructional aides plus a full-time counselor. The program is housed in its own well-equipped and well-located facility.

Program: Vocational Mobile Lab (VML) Program
Location: Memphis, Tennessee
Operated by: Memphis City Schools
Program Contact: Mr. William C. Wilhelm
2597 Avery Avenue
Memphis, Tennessee 38112
Phone: (901) 323-8311

The program is a pre-vocational exploration and awareness program using six mobile classrooms made from standard 12' x 60' mobile home shells to reach more students than would be possible with the same number of stationary in-school classrooms. The program has no intake system, deriving all students from existing special education work adjustment classes for one period each day of a six-week period before moving to another school. The program is completely federally funded. It began operation in 1970, although the idea had its beginning in 1969.

The labs serve junior and senior high special education classes in 21 high schools composed mostly of educable mentally retarded students (IQ 50-75). They receive pre-vocational and hands-on simulated work experience in metal working, wood working and home economics. Repetition is possible and encouraged in grades 7-12. Students are scheduled into labs by the special education department and no attempt has been made to provide planned recycling into the three vocational areas. There are two counselors whose function is guidance counseling.

The most unique feature is the mobile classroom. The original cost for six bare shells was $42,000 and the total capital cost of the units was $66,000 including all equipment. The use of mobile home type classrooms was a partial replication of science mobile classrooms in Memphis and San Diego.

The staff consists of six full-time teachers, one half-time coordinating teacher, three counselors and one program administrator. Annual cost per student is $319 if all students served in one school year are counted.

Program: Vocational Preparation
Location: Phoenix, Arizona
Operated by: Carl Hayden High School
Phoenix Union High School System
Program Contact: Mr. Robert Anderson, Department Chairman
Special Education, Carl Hayden High School
2625 West Osborn Road
Phoenix, Arizona 85017
Phone: (602) 258-8771

The program provides individualized skill training in up to 32 occupational areas. The goals of the training are attitude adjustment, occupational exploration, skill development and evaluation.

The program serves about 90 sophomore and junior educable mentally retarded students. Sophomore students take three hours of academic instruction and two hours of vocational training while junior students have work experience for two or three hours and take three hours of either academic or vocational training in alternate quarters.

Each occupational task is contained in a 4' x 8' x 3' training station. Each station contains tools, work samples and has written instructional material. The instructional materials for some occupational areas are facilitated by audio tape cassette instruction.

An average of one instructor (teacher, teaching assistant or tutor) is available for every five students. The average time required for a given task area is about three hours. Minimum performance is required before a student is allowed to proceed to another area.

Program: Vocational Training & Education Program (VTEP)
Location: Tucson, Arizona
Operated by: Rehabilitation Center, University of Arizona
Program Contact: Mr. Don Fila, Coordinator
1034 East Adams Street
Tuscon, Arizona 85719
Phone: (602) 884-2172

VTEP is a work adjustment program for educable mentally retarded (EMR) students. It is administered by the University of Arizona and funded jointly by the Division of Vocational Education, the Department of Vocational Rehabilitation and four local school districts. All high school EMR students in the Tucson school districts attend. As EMR's, they qualify for Department of Vocational Rehabilitation services and the Department of Vocational Rehabilitation refers all of these students to VTEP. Although primarily a program for high school juniors, it also accepts via the Department of Vocational Rehabilitation any handicapped young adult (under age 25 and out of school) who is having difficulty maintaining a job.

VTEP is an 18 week program (including 8 weeks in the summer) which enrolls 50 students in each session or 150 students per year. It is scheduled to be a one-time program and only about 20-30% of the students attend two sessions. The students attend their regular high school for three periods per day to receive academic training. Five hours per day are spent in VTEP for vocational training. Vocational areas are automotive, home economics, metal, office education and woodwork.

The purpose of VTEP is to teach good work habits and to develop a positive self-image among its enrollees. Specific skill training is secondary but it is used to teach new attitudes as well as to teach applicable skills. VTEP concentrates on attitude building in a vocational setting. To accomplish this, heavy emphasis is placed on individual and group counseling with the equivalent of three full-time counselors for the program. A low average student/teacher ratio (50 pupils to 7 vocational teachers) assists concentration on individual students.

Program: Vocational Village
Location: Portland, Oregon
Operated by: Portland Public Schools
Program Contact: Mr. Ronald L. Thurston, Director
5040 S. E. Milwaukee
Portland, Oregon 97202
Phone: (503) 234-6604

Vocational Village is a vocational education school for high school dropouts ages 14-22. Currently, it serves approximately 435 students (disadvantaged - 185; handicapped - 270). The program follows an open enrollment policy and no one is turned down. Students may enter any time during the year and may leave and re-enter the program as they wish. Most handicapped students are classified as emotionally distrubed; this diagnosis is generally made after enrollment on the basis of teacher observation. The diagnosis is for external reporting purposes only; very few have been given psychological or psychiatric tests.

Since its inception in 1969, with 50 students, Vocational Village has grown rapidly and steadily. Enrollment is at maximum capacity. Approximately 500 competency certificates have been awarded and the program has had 360 graduates. The program provides the students the opportunity to earn a high school diploma and to develop entry-level job skills in one of six cluster areas: office occupations; food service; health occupations; marketing; mechanics; and metals. The program is attempting to use an interdisciplinary approach by focusing on vocational uses in the teaching of academic subjects. An individual instruction approach is utilized in which the students complete job sheets (102 hours of work) at their own pace; these job sheets build into credits for competency certification and graduation. The average student takes about three years to complete the program. Work experience is stressed during the student's time in the program and apporximately 60% of the students take part in a work experience program either related or non-related to their occupational cluster.

Vocational Village has two advisory groups: the career advisory board, which consists of representatives from local industry to advise on occupational clusters and the citizens advisory committee whose members provide input on goals, direction and planning for Vocational Village.

Program: Work Evaluation Center
Location: Clearwater, Florida
Operated by: Pinellas County Public Schools
Program Contact: Mr. Allen Kerns, Coordinator
Pinellas Vocational Technical Work Evaluation Center Institute
2470 Norseny Road
Clearwater, Florida 33516
Phone: (813) 531-0022

The center was located temporarily in a Unitarian Universalist Church in Clearwater, Florida prior to moving to its own 10,000 square foot ($100,000 cost) facility next to the Pinellas County Vocational Tech High School in early fall of 1974. The program lasts two weeks and is designed to produce work evaluations of students referred to it. It serves a complete range of handicapped and normal students.

The center evaluates 30 students every two weeks, 23 weeks a year, or 690 students a year. Students are referred to the center by vocational rehabilitation, local schools, a drug rehabilitation program and special education schools.

The center reviews students referred to it for vocational placement throughout Pinellas County, Florida. It began with the Testing, Orientation,Work Evaluation in Rehabilitation and Jewish Employment and Vocational Service work sample units to serve handicapped students from exceptional child centers. Later the Singer/Graflex system was added. Students are selected by a committee of school and vocational rehabilitation counselors, teachers and a work evaluation coordinator. Criteria used include tests, class performance, interest and abilities. The work evaluation coordinator works closely with all concerned (including parents) in the identification and selection of handicapped students and vocational training placement. Tours of vocational training programs and local firms are concluded for exceptional child center students prior to, and during both work evaluation and vocational training.

The center is staffed by a director, three teams of two evaluators each, two occupational specialists, a program coordinator and a secretary. The cost per student evaluation to the center is $187.

Program:	Work Experience Program
Location:	Reno, Nevada
Operated by:	Washoe County School District
Program Contact:	Ms. Geri Myers, Vocational Counselor Washoe County School District 425 East Ninth Street Reno, Nevada 89502
Phone:	(702) 322-6953

The program is a pre-vocational exposure and work-experience program for educable mentally retarded students in the four high schools in Washoe County. It was begun in 1966 with a planning grant from vocational education. The program operation has been funded by the county since then.

The program consists of a pre-vocational phase for 9th and 10th graders conducted by the special education class teachers. The students move into on-campus and off-campus placement on work stations beginning in the 10th grade and continuing through the 11th and 12th grades.

During the pre-vocational phase, the program concentrates on building positive attitudes and developing general work skills applicable to many job situations. The students spend full-time in school during this phase. Video tapes and multi-media presentations on specific job situations are used to expose the students to a real job situation. No specific job skills are taught in the program; training for a particular job is accomplished by an employer on an on-the-job training basis during the work-experience portion of the program. Students who are involved in the work-experience phase spend one half day in school and one half day at work. Multiple placement is often required for students who do not succeed in their first job placement. When students lose their jobs, they return to school full time unitl another placement can be arranged.

There are currently 104 high school students involved in the program. The program staff consists of the vocational counselor, student advisor, eight special education teachers and two vocational education teachers. The project director is the vocational counselor responsible for vocational counseling, placement, evaluation, employer contact and special education teacher assistance. The student advisor provides personal counseling for the students. The teachers provide pre-vocational and vocationally related academic training for the students. Some assistance is received from the school counselors, but only minimal support is available from other agencies.

Program: Work-Study Experience Program
Location: Russellville, Arkansas
Operated by: Russellville Public Schools
Program Contact: Mr. Don L. Dover, Teacher-Coordinator
Russellville High School
Highway 7T
Russellville, Arkansas
Phone: (501) 968-3151

The program is basically a work-study program for students 16-20 inclusive whose IQ falls between 50 and 80, and who live in the Russellville school district. It was begun in September 1969, under a Title I ESEA grant through the State Department of Education, Division of Special

Education. The grant was continued for four years until the current fifth year when the program was picked up by local funding with partial state reimbursement.

The program is strongly supported by Arkansas Rehabilitation Services which supplies the services of a special counselor half time. The counselor assists the teacher-coordinator in testing, placement and follow-up.

There are only 15 student slots in the program although more could benefit if there were additional space available. The students spend one half day in class the other half at their work-study stations.

There is no staff additional to the counselor and the teacher-coordinator, a total of 1.5 full-time equivalents. The program costs per student year are approximately $1,200, of which the local district pays $600.

APPENDIX C

CASE STUDIES

Introductory Note

The purpose of Appendix C is to provide the interested reader with an in-depth and integrated view of the total operations of three programs which were identified in the national survey as effective in providing handicapped students with occupational education. These programs are not presented as absolute models or ideals for the reader to emulate, but they do provide a total look at actual on-going programs. They are not perfect and are continually being improved by their staff, but they were the best examples from the national survey of occupational programs for the handicapped in the opinion of MAC researchers. Each of the three is effective and provides its services at a cost attainable by the majority of local educational agencies.

Each of the three programs described represents a different type of occupational program for the handicapped.

1. An integrated program in which handicapped students are served in regular vocational education programs.

   ### Calhoun Area Vocational Center, Battle Creek, Michigan

   Handicapped students attend their home high schools for half a day for academic training and the vocational center for half a day for vocational training. The students are fully integrated into the classes; they are not identified separately as handicapped and in many cases the vocational teachers are unaware of their classification as handicapped. Students requiring special assistance are referred to a special needs team for remedial reading or math work and vocational and personal counseling. The special needs team services are open to all students, but the bulk of the students receiving their attention are handicapped or disadvantaged.

2. A comprehensive vocational education program for handicapped students that provides a continuum of services and educational arrangements for handicapped students, beginning with a separate program for the handicapped students and extending to a program in which the handicapped students are fully integrated into a regular vocational education program.

Employment Orientation Program, Sicklerville, New Jersey

The Employment Orientation Program is located on the campus of the county vocational-technical school. Students may spend the entire day at the school, receiving both vocational training and academic education on campus. The program offers a continuum of options by type and level of training for the handicapped student. Students are placed in regular vocational classes whenever possible, although segregated special needs classes (academic) and vocational cluster shops are maintained where handicapped students are taught basic skills while being evaluated in terms of their potential for integration into regular vocational classes.

3. A segregated program serving the vocational needs of severely handicapped students.

Aux Chandelles, Elkhart, Indiana

Severely handicapped students, ages 18-21, enter the program after attending special education pre-vocational classes in a centralized public school facility. Based on staff observations and an evaluation of productive capacity and interest, the students are placed in a training program leading to placement on one of three levels: competitive employment; in-house work station; or work activity. The students' progress throughout the program is monitored through the use of an individual program plan prepared with the assistance of a Progress Assessment Chart.

The program descriptions are not meant to be evaluative. The programs themselves, as well as the processes, operations, approaches, methods, materials, and individuals described, should be viewed as programs that rated highly when judged by the three major criteria used in this study: effectiveness, comprehensiveness, and replicability.

SPECIAL NEEDS PROGRAM FOR THE HANDICAPPED AND DISADVANTAGED
CALHOUN AREA VOCATIONAL CENTER, BATTLE CREEK, MICHIGAN

Calhoun Area Vocational Center (CAVC) is one of 25 area vocational centers established by the Legislature in Michigan to provide job training for high school students. CAVC was one of the first such centers. Beginning in September 1970, it has served all 13 school districts within Calhoun County in that they each send junior and senior high school students to the center for vocational training. Approximately 25% of all juniors and seniors in Calhoun County attend. Students are selected to attend by the local high schools based on the high school counselor's knowledge of the center's program offerings and the desires and capabilities of their students. CAVC considers itself an extension of the school districts rather than a separate entity.

The Center serves all students -- normal, disadvantaged and handicapped--- without distinguishing among them in the program. The students attend their home high schools for half a day for academic training and CAVC for the other half of the day for vocational training. Handicapped and disadvantaged students are fully integrated into CAVC classes; they are not identified separately and in many cases are unknown to the vocational teachers. Students requiring special assistance are referred to the special needs team for remedial reading or math and vocational and personal counseling. Special needs team services are open to all students, but the bulk of the students receiving their attention are handicapped or disadvantaged. There are seven members of the special needs team at CAVC; three team members, plus the resource room teacher provided by the Intermediate School District, work primarily with the handicapped. The special needs program for the mentally and physically handicapped began operation in January 1972. Operating costs of CAVC are provided by a county-wide tax voted by the citizens of Calhoun County. The special needs component has been funded through a vocational education project grant from the Michigan Department of Education (approximately 65% of costs) and through special education reimbursement from the Intermediate School District (approximately 35% of costs).

Currently, 97 handicapped students are being served by the special needs team out of a total enrollment of approximately 1, 340. Most of the handicapped students are classified by their home high schools as educable mentally retarded (EMR) with some of the students possessing an additional emotional or physical handicap. There is a highly effective referral system for special needs team services. Anyone can initiate a request for assistance on a problem, and within 24 hours a member of the special needs team will have investigated the situation, resolved the problem, or, at least, have initiated action. Special needs team members have a great deal of mobility. Each member is in every program area practically on a daily basis, resolving problems almost on the spot. CAVC takes a team approach to providing services to students. Staff members work together and feel free to call on one another for assistance. The students themselves participate in the selection of objectives to be accomplished in their training program.

Setting Up the Program

In the late 1960's, Michigan passed a law authorizing the establishment of area vocational centers because no single school district was able to afford the appropriate facilities. A Policy Advisory Committee composed of educators, business and industry personnel and interested citizens representing the local school districts in Calhoun County was formed to direct the planning, implementation, and operation of CAVC. Following more than a year of planning and preparation, CAVC opened in the 1970-71 school year with thirteen program areas; eight more were added during the first year. The Center relied on Type C consultants (itinerant special education consultants) from the Intermediate School District and a part-time work-study coordinator to provide assistance to the mentally retarded and physically handicapped students attending the programs. The Vocational Rehabilitation Service counselors also provided support, particularly with the educable mentally retarded students.

In 1971-72, a proposal was submitted to the Vocational Education and Career Development Services Division of the Michigan Department of Education for establishing a special needs program for the mentally and physically handicapped students. The project was accepted, and began operation during the second semester. The Policy Advisory Committee, prior to the opening of the Center, recommended that a special room be established for the handicapped students with gradual integration into regular programs. The special needs staff, backed by the director, opposed this idea and integrated the handicapped students from the outset; these students were provided support services from special needs personnel. One of the Two Type C consultants working in the Center was hired as a curriculum resource consultant for the special needs team. The project also funded a half-time administrator and clerical support.

For the 1973-74 school year the special needs project was expanded to include the responsibility for the special needs program at the Branch Area Vocational Center located approximately 30 miles away. The project staff for the handicapped was expanded to include a project coordinator and two consultants for the handicapped (one for each center). A resource room teacher for tutorial assistance was also added and a teacher was hired by the Battle Creek School District. The school district was partially reimbursed by the Intermediate School District.

Recent Michigan State legislation on education of the handicapped will have further impact on the special needs program at CAVC. The recently enacted laws on special education: (a) require public schools to serve the handicapped up fo 25 years of age; (b) mandate the provision of pre-vocational and vocational training for the handicapped; and (c) require the shift from special classes to resource rooms. These changes are expected to mean that more students who are better prepared and who already will have been exposed to regular classes will be entering the Center for training.

There are approximately 60,000 persons in the Battle Creek metropolitan area with 47,000 inhabitants in the city itself. The city's economy is primarily industrial and the surrounding areas depend on agricultural activities. The population is 80% white, about 18% black, and 2% Indian and Mexican-American. Throughout its operation, it deals closely with each of the 13 school districts in areas such as pupil testing and selection, in-service training, pupil exposure to CAVC, school policies, course selection, and job placement.

The Intermediate School District provides assistance to CAVC in services to the handicapped through the three Type C consultants, each of whom spends about $1\frac{1}{2}$ days per week at the Center. They tend to concentrate on academic problems for the lower ability, mentally handicapped students attending the Center. They also provide personal and social counseling, home visits, follow-up and local school counseling and placement assistance. They work with ninth and tenth grade handicapped students in the high schools to obtain background data on them and bring the tenth graders to CAVC for a tour and possibly a stay of several days in a classroom in the summer. In general, they work as part of the team serving handicapped students at CAVC. The Intermediate School District also provides financial support for the resource room teacher.

Vocational Rehabilitation Services (VRS) now provides assistance in the area of extra services and placement rather than direct help inside the program. As a result, CAVC has assumed the major role in coordinating vocationally related services for handicapped students. The VRS personnel meet with the CAVC special needs team about every two weeks to discuss cases and to avoid overlap of services. The VRS counselors have a high opinion of CAVC and its ability to provide training leading to the employment of its handicapped students.

Alternatives for vocational training for handicapped students are limited if they do not attend the CAVC. However, the home high schools do offer some vocational education programs, in addition to those at CAVC. Battle Creek High School, the largest in Calhoun County, will accept students from other high schools in the vocational programs if no space is available at CAVC. The home high schools also have work-study programs in which many students participate. These students receive special needs support from the Type C consultants. Within 35 miles of Battle Creek, there is a State Technical Institute and Rehabilitation Center primarily for the physically handicapped. Trainable mentally retarded students can attend a work activities center run by Goodwill Industries. There is also a state program for which blind students may be eligible. Kellogg Community College, located across the street from the CAVC, also works with the CAVC and special needs staff to coordinate the development of special needs programs for the disadvantaged and mentally handicapped. Since the community college is the next training program for many students, this provides a continuity in vocational training.

Each occupational area has a program advisory committee to work with the instructional staff on the content and relevancy of the program area. A Special Needs Policy Advisory Committee also exists to represent both the handicapped and disadvantaged. Occasional assistance is received from the Department of Social Services and Family-Children Services (county office) in the form of specialized counseling. Services are provided two to three times per year as requested by the special needs team.

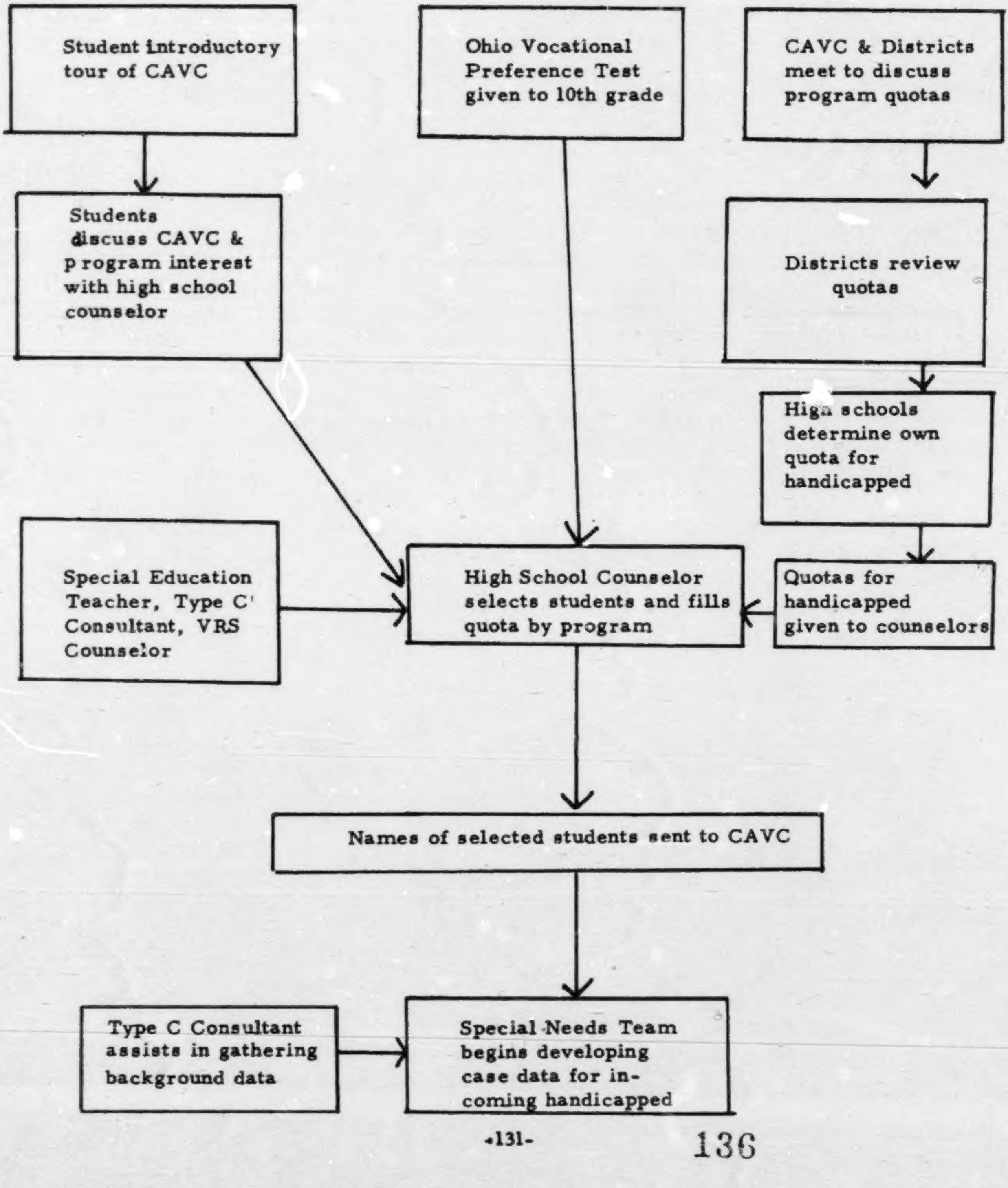
Identifying Students

Identification of the handicapped is the responsibility of the local schools. In its function as coordinator of special education resources and provider of special education services in the county, the Intermediate School District provides a psychologist who performs psychological examinations upon request for suspected handicapped pupils. A medical examination is also required. If the parents are not able to provide it, the cost of the examination is funded by Vocational Rehabilitation Services. The high school counselor, together with the special education teacher, Type C consultant, and Vocational Rehabilitation counselor, use the diagnostic and descriptive data developed on the student to decide on the most appropriate placement.

Each school district is assigned a quota of students it may send to CAVC. The quotas are by program area and are mutually determined by CAVC and the school counselors. The determination of how many handicapped students to include in a high school's quota is left to the administration of the individual high school. The handicapped students currently attending CAVC are generally classified as educable mentally retarded (50% to 70% of normal intellectual growth), although some are multiply handicapped with additional difficulties of emotional distrubance or physical handicaps. Prior to the selection process, many handicapped students are taken on an introductory tour of CAVC by the high school counselor or Type C consultant. They may also spend several days in a CAVC classroom and discuss their occupational preferences with the counselor. The Ohio Vocational Preference Test is given to about half of the 10th graders. Additionally, Vocational Rehabilitation Services purchases a 4-week work skills evaluation for approximately one-third of the handicapped students through Goodwill Industries. With this information, the counselor selects the handicapped students to attend CAVC and the programs in which they will be placed. The intake process is shown on Exhibit 1. The specific procedures and criteria for selection will vary from school to school. As a typical example, at Harper Creek High School, the students decide on whether they want to go to the CAVC or remain at Harper Creek which has its own vocational education program. The students also select the occupational area they wish to enter. The high school counselor will refer the student to the CAVC if there are no severe emotional disturbances. If more students are interested than there are openings in a program, the counselor considers such factors as student attendance record, grades, long-range goals, knowledge of the program, attitude, test results, and input from special education teachers, Type C consultant, and the Vocational Rehabilitation Services counselor. The counselor at Harper Creek also encourages special education students to select program areas in which they are likely to succeed.

Exhibit 1

Flowchart of Intake Process



Student introductory tour of CAVC
Ohio Vocational Preference Test given to 10th grade
CAVC & Districts meet to discuss program quotas
Students discuss CAVC & program interest with high school counselor
Districts review quotas
High schools determine own quota for handicapped
Special Education Teacher, Type C Consultant, VRS Counselor
High School Counselor selects students and fills quota by program
Quotas for handicapped given to counselors
Names of selected students sent to CAVC
Type C Consultant assists in gathering background data
Special Needs Team begins developing case data for incoming handicapped

Meeting Student Needs

The CAVC program for handicapped students revolves around providing special needs support to the students and teachers in regular vocational classes. A summer school program provides pre-vocational exploration and training for some students. Students are also given the opportunity to explore jobs within an occupational cluster during the initial weeks of orientation in a vocational class. Academic studies are provided mainly in the home schools. Several work experience programs are available: a work-study program; a cooperative work training program; and a job experience program. Exhibit 2 provides a flow chart of student progress through the program. The new curriculum encourages the coordination of academic instruction and vocational training for the handicapped. The curriculum materials and approaches were developed by Central Michigan University and tested and modified in vocational programs at CAVC and other locations in the state.

The keys to success of the program are basically two -- the manner in which support is provided by the special needs team and the method in which students participate in planning their own programs. The team provides virtually instant response to requests for assistance; team members have a great deal of mobility and generally visit every program area on a daily basis. There is a genuine team approach to the provision of services to students.

The program strives to: "...enable mentally and physically handicapped students to obtain basic vocational skills and to develop abilities and interests within the limits of the handicapped student's physical and mental capacities, which are meaningful and realistic relative to being a contributory citizen and member of the work force."

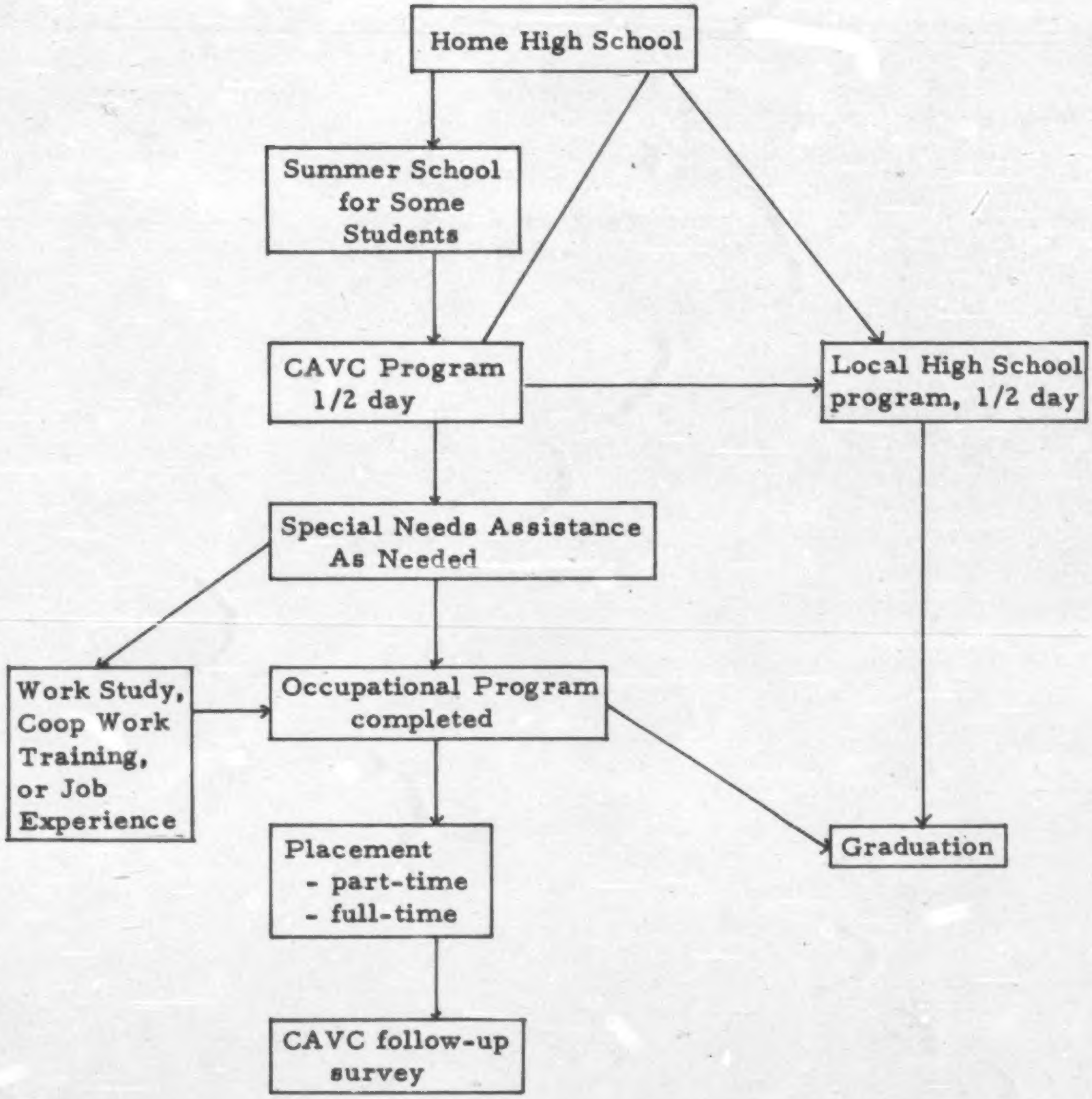
These are the program specifications designed to achieve the overall goal:

1. Make pre-vocational or exploratory experiences accessible to the handicapped as a part of the regular vocational setting at the Center and community job sites.

2. Provide for the continuous evaluation of abilities and disabilities.

Exhibit 2

Flowchart of Student Progress


Home High School
Summer School for Some Students
CAVC Program 1/2 day
Local High School program, 1/2 day
Special Needs Assistance As Needed
Work Study, Coop Work Training, or Job Experience
Occupational Program completed
Placement - part-time - full-time
Graduation
CAVC follow-up survey

3. Make regular occupational education programs accessible, for specific job training.

4. Provide, concurrent with job training, communicative, computational, and quantitative skill training at the Center and in the home school.

5. Develop a closely monitored program of individualized instruction.

6. Establish cooperative arrangements with local schools, intermediate district special education and regional vocational rehabilitation agencies.

7. Effect community involvement of family, advisory committees, business and industry and relevant organizations.

8. Effect entry-level job performance certification, job placement and on-the-job follow-up.

9. Establish staff selection process and well-designed pre-service in-service training program or both designed to meet the needs of the handicapped.

CAVC is lodged in a custom-designed, one-story building of 144,000 square feet which houses all of the programs and administrative offices. The program areas are well equipped with equipment and machinery needed for the various occupational areas.

An integrated summer school session provides students with some pre-vocational and exploration training. Generally, about 20-25 special needs students attend. The program operates on a half-day schedule for six weeks and offers from 10 to 14 programs. It is open to incoming juniors and seniors. Students generally explore the offerings in two occupational areas. The students are accepted on the basis of interest and whether they will have a reasonable chance for success. To date, lack of transportation has limited enrollment.

Skill training programs are offered in the following 28 occupational areas:

	Occupational Area	Approximate Total Enrollment	1972-73 Handicapped Enrollment
1.	Agricultural Mechanics	48	2
2.	Air Conditioning & Refrigeration	48	1
3.	Auto Body Repair	40	2
4.	Auto Mechanics	80	9
5.	Building Maintenance	24	15
6.	Carpentry	48	5
7.	Child Care	40	5
8.	Commercial Art	48	2
9.	Costmetology	80	1
10.	Data Processing	50	-
11.	Drafting	60	1
12.	Electricity	40	-
13.	Floor Covering	40	-
14.	Food Service	90	15
15.	Graphic Reproduction	60	1
16.	Industrial Machines	50	-
17.	Industrial and Domestic Service	30	18
18.	Landscaping, Horticulture, and Floriculture	48	4
19.	Marketing and Retailing	60	2
20.	Medical Office Practice	30	-
21.	Nurse Aide and Male Attendant	50, 30	2
22.	Radio and T. V. Repair	48	2
23.	Secretarial and Office Practice	30, 48	2
24.	Small Engines Repair	40	1
25.	Industrial Truck Mechanics	40	1
26.	Visual Communications	20	-
27.	Welding	40	5
28.	Accounting Clerk	25	-
	Total		

One and two-year vocational programs are offered. Generally, only juniors are admitted to the two-year programs. Certain one-year programs are restricted to seniors to avoid the loss of skills resulting from a time lag in obtaining a job if the student were a junior and were unable to obtain a job immediately. In theory, all programs are open to the handicapped. In practice, the high school counselors tend to place them in certain programs as a result of their assessment of the student's potential and past unsuccessful experience in more advanced programs. The procedures and criteria for program placements vary somewhat depending on the high school from which the student comes. What the counselor tries to evaluate is the student's potential for success in a program area.

The program consists of a one-half day session (3 hours) either in the morning (8:30 a.m. - 11:30 a.m.), afternoon (12:15 p.m. - 3:15 p.m.). or extended day sessions (3:30 p.m. - 6:30 p.m.). The student spends the other half-day at his home high school. Many of the handicapped students receive instruction at the home high school in a segregated special class. The curriculum steps and sequences depend on the particular vocational program area and the individual teacher. For the handicapped, the special needs team provides the common unifying element.

The training is intended to be as realistic as possible; the purpose is to teach not only the specific occupational skills, but also job attitudes expected by employers such as regular attendance and promptness. All occupational areas provide training as much like the real job situation as possible. Some examples are:

> Auto Body Repair - buys wrecked cars, repairs and refinishes them, and resells the cars.
>
> Auto Mechanics - does repair work on cars brought in by the public.
>
> Building Maintenance - maintains the Center; has maintenance contract with the local hospital for weekends.
>
> Carpentry - builds and sells two houses per year in the $30,000 range.

Child Care - conducts part-time child care center at the Center.

Food Service - operates a cafeteria and a restaurant at CAVC.

Nurse's Aide and Male Attendant - provides on-the-job training in a local hospital; patient responsibility under supervision of instructors.

Secretarial and Office Practice - staffs and operates the CAVC office.

The special needs team works with the handicapped students and the vocational instructor to develop any program modifications necessary to accommodate them. On the basis of individual requirements, the programs are modified to enable the handicapped student to succeed at a combination of job tasks that are representative of an employment situation. Program modifications may include, but are not limited to, the following: adding a new program dimension, varying time requirements for learning, adapting equipment and facilities, revising instructional media and instructional techniques, providing remedial instructional units and assigning professional support staff to handle social and psychological problems.

Program modifications have been required for about 30% of the handicapped students. Exhibit 3 provides the curriculum modifications required for a deaf and partially blind student named Frank. For the educable mentally retarded student, curriculum modifications usually consist of providing remedial reading and math instruction and lengthening the duration of instruction.

The method of teaching consists of modules built around specific hierarchical entry-level job skills. This approach permits individualization of instruction. After the student's initial exposure to the occupational area (one or two weeks in the program), the vocational instructor meets individually with him to discuss what he plans to accomplish in the program. They reach an agreement on this and each signs a student/instructor commitment which specifies how many modules the student will complete (Exhibit 4). This commitment is reviewed with the student periodically throughout the year and updated if necessary.

Exhibit 3

TENTATIVE TRAINING GUIDE

STUDENT: FRANK CLASS: SMALL ENGINES

Goal

To help Frank reach his maximum level of potential by learning mechanics in which he has a strong personal interest and using this as an exploratory vehicle and an evaluation device.

Performance Objectives

I. Provide student the opportunity to explore and determine extent and limits of his ability to perform in his chosen field with the physical limitations he must recognize, accept and deal with.

II. Provide program training method modification to allow the student every opportunity to succeed.

- (a) Enlarged print for reading.
- (b) Development of the five basic senses.
- (c) Individual, hands on, show-tell-do instruction.
- (d) Verbal testing -- demonstration ability evaluation.
- (e) Assistance from teacher of the deaf to improve communication skills.
- (f) Assistance from home school teacher and teacher of the deaf for learning trade terminology and reading technical manuals in order to develop a thorough knowledge of methods.

III. Provide coordination of the training program between the home school and the Center through the Type C Consultant and teacher and periodic consultations with the parents.

IV. Provide bi-monthly counseling sessions to review the student's progress, to determine student's present level of commitment, to determine possible needed changes in program, and to discuss any possible personal and social problems which may arise as a result of being involved in an individualized program.

V. Involve Type C consultant and center job placement director and program manager in pursuing job placement possibilities as soon as it appears that a student can successfully complete all tasks and meet job entry-level skill requirements.

VI. Special Needs Policy Advisory Committee shall review each individualized training program and make any recommendations members feel necessary to up-grade program.

Exhibit 4

CALHOUN AREA VOCATIONAL CENTER

STUDENT OCCUPATIONAL READINESS FORM
(An Individualized Conference)

Student Name ______________________ Home School ______________________

Program ______________________ Home School Counselor ______________________

Instructor ______________________ Date ______________________

A. Reasons for enrollment in program: ______________________

____

____

B. Past experiences (related classes, jobs, etc.): ______________________

____

____

C. Student training commitment: ______________________

____

____

D. Plan of action: ______________________

____

____

____

E. **Provisions for special assistance:** ______________________________

____

F. **Comments:** ____

____

____

Please return this form to the Guidance Department at the completion of the program.

9/71

CAVC is responsible for vocational training. The home high school is responsible for academic training. However, the CAVC, through the special needs team, does provide some academic assistance to students (often handicapped) as needed, often on an informal basis in the vocational classroom. Upon completion of a CAVC occupational area training program, the students receive a certificate that states that they have successfully obtained the job skills required for employment in that area.

The special needs team members also teaches job preparation and awareness classes to all students. Students attend two 1½ hour classes the first semester and all seniors attend a one hour class prior to graduation. The specific topics are:

Orientation to Work World -- such issues as fringe benefits, unions, advancement and promotion criteria, and personnel policies are discussed.

Locating a Job -- tells where to obtain job opportunity information and how to use employment agencies and want ads.

Application and Interview -- a range of topics is discussed from writing an application letter to the appropriate dress and grooming for an interview.

Holding a Job -- identifies the behavior and habits that will ensure holding a job.

Changing a Job -- identifies the valid reasons and the proper steps for changing a job.

Follow-Up -- informs graduating students of the yearly follow-up, the reason for it, and their expected response.

Several work experience programs are available to handicapped and disadvantaged students:

Work-Study Program

The Work Study program provides paid work experience to students with limited financial means and those who are receiving some form of public assistance. Students work in the Center and in the community both during and after school hours. Most of the jobs are in the school. These include teacher's aides and building maintenance. Those working during school hours, work during the half day spent at CAVC and receive high school credit.

Community Cooperative Work Training Program

The Community Cooperative Work Training Program provides jobs for students in the community for a specified period of time. The placement is temporary and is viewed as training, not as a prelude to permanent employment. In this program, employers are paid by CAVC to provide job experience and training. Students are placed in the program at the minimum wage for four half-days per week; the fifth day is spent at CAVC for related vocational and academic instruction. Students work up to 18 weeks or a maximum of 90 working days to accomplish pre-determined written goals and objectives.

Job Experience Program

In this program, students are placed in work stations in the school or in the community to acquire unpaid work experience related to their training programs.

Except for the work-study program, the vocational instructor is responsible for placement and required paperwork is processed by the CAVC placement director. The type of work experience offered and the placement procedure are determined by the individual vocational instructors. Some vocational instructors must generate job leads in their program areas. In other areas, jobs are waiting for students. For example, the nurse's aide instructor simply calls a hospital and reports that a certain number of students will be ready to begin their job experience training on a certain date.

Generally, employers have been pleased with the training and ability of the CAVC students. The administrator of a local hospital has turned the weekend maintenance function over to a CAVC-supervised team of students in the building maintenance program. He found that the CAVC students were of higher quality and better trained than the hospital's own staff.

He is now actively trying to place additional CAVC students as surgical aides and dietary assistants. He has no idea whether any of the students were handicapped since no difference was noted in their abilities. The only negative note came from a nursing home that had found the tasks for their nurses' aides were generally beyond the capabilities of the mentally handicapped students. In particular, problems occurred because of the lack of skills in reading, writing and failure to remember medical routines.

Related Instruction

The curriculum development project at Central Michigan University was undertaken to help students overcome limitations that must be dealt with if appropriate vocational skills are to be developed. The project developed ten training packets for handicapped students which have been used and evaluated in CAVC. The packets consist of a series of task sheets which provide both the vocational instructor and the special education teacher with suggested curriculum, instructional objects, methods, materials and equipment. The packets are based on a modular approach and are designed to build on success. They are designed to foster cooperation between vocational instructors and special education teachers at the home school in the program planning for and teaching the handicapped.

Once the student is placed in an occupational cluster or sub-cluster program, the vocational instructor and special education teacher begin the process of teaching cooperatively. A series of instructional units is chosen or developed for each student from the training packets. Each instructional unit is based on entry-level job tasks. Task sheets (instructional units) are the basic tool of the training packets that the teachers use to plan, implement, and evaluate a cooperative vocational education/special education program. Exhibit 5 shows a sample task sheet for such a program. The front side of the task sheet is composed of four sections. The behavioral task knowledges/task skills section identifies the specific mental understanding or association needed in the performance of the task as well as the physical, manipulative activities associated with performing the task. The instructional methods and materials section is designed to suggest specific teaching techniques, strategies and materials that have been used effectively with handicapped students. The task-related competencies section identifies some specific learning readiness skills associated with the task. The reverse side of the task sheet is designed

Exhibit 5

BEST COPY AVAILABLE

Task Sheet (Front Side)

SUBCLUSTER: AUTO BODY REPAIR

TASK: Perform bumping operations

Code: APS - AB02

Sheet 1 of 1

Student Name: ____________

AUTOMOTIVE
AND
POWER
SERVICE
CLUSTER

SUBCLUSTERS:

Air Conditioning

Appliance Repair

Auto Mechanics

Auto Body Repair

Small Engine Repair

II

Student Progress: Introduced	Involved	Productive	Employable	Behavioral Task Knowledges/Task Skills	Instructional Methods
				Given the necessary tools, materials, equipment, and requisite knowledge, the learner will 1. identify by name specific body fillers and equipment used in repairing surfaces or components 2. select the appropriate materials, tools, and equipment needed in specific operations 3. recognize and observe specific safety precautions in repairing surfaces 4. perform the following job skills with accuracy to meet the accepted manufacturer's design a. rough bumping b. straightening c. bump a simple dent d. bump a rolled dent e. bump a ridge f. shrink metal g. stretch metal h. remove dents with heat i. fill with lead j. fill with plastic k. apply appropriate putty for filling deep nicks or scratches in automobile bodies 5. finish the bumped sheetmetal panel to original condition using a. vixen file c. pick hammer b. solder flow file d. dolly block	• Teacher assists, directs, and/or monitors a student(s) in seeking and developing a need(reason) for initiating the task module. • Student reviews the appropriate sections and illustrations in textbooks and related materials • Students view individually or in small groups the appropriate instructional media materials • Teacher provides a demonstration of products, safety precautions, and repair procedures • Students practice specific operation on obsolete materials or components, simulated components, models, or mock-ups • Students develop competencies by actual practice of the identified task skills on personal car or customer's car

Task-Related Competencies	Instructional Materials: Title	Media	Bib.
KNOWLEDGE A 2,3,5,7,9	Auto Body Repairing and Repainting pp 23-35	13	9
NUMBERS	"Hand Tools" (series)	12	30
	"Metal Preparation"	12	30
B 4b,c,d,f,5	"Filling Techniques" (series)	12	30
	"Hammer and Dolly"	12	30
APPLICATION	"Simple Rolled Buckle"	12	30
C 5,8			
PHYSICAL	Instructional models (old fenders)	2	
D 1a,d,e,f 2c,3a,c,f,g	Display board illustrating procedures for body filling and surface preparation	16	28

Exhibit 5 (Cont.)

Task Sheet (Reverse Side)

AUTOMOTIVE
AND
POWER
SERVICE
CLUSTER

SUBCLUSTERS:

Air Conditioning

Appliance Repair

Auto Mechanics

Auto Body Repair

Small Engine Repair

12

SUBCLUSTER: AUTO BODY REPAIR

Code: APS- AB02 TASK: Perform bumping operations

Basic Information for Cooperative Teaching		Suggestions:
Language of the Task	Quantitative Concepts	
Common auto body deformations dent crease buckle twist	Concept of "shrinking" metal Concept of "stretching" metal Concept of "filling" dents or creases Concept of "straightening"	• Teacher and deaf student should cooperatively develop some simple signs • Be careful in using words with multiple meanings when talking to lip reading deaf students • Use sample board illustrating dents, creases, buckle, twist • Hand tool safety is extremely important • Informally encourage voluntary buddy system for assisting blind students (individualize without calling attention to individual) • Give the blind student ample time for accumulating finger knowledge. Instructor must aid student in moving fingers for gathering information
Supportive Instructional Materials:		

to help the special education teacher. The language of the task and the quantitative concepts sections provide grounds for communication between the cooperating teacher and the vocational teachers.

The suggestions and supportive instructional materials sections include a variety of suggested teaching activities, ideas, games, or materials that may be used in providing an effective and supportive link to the vocational instruction.

Support Services

The special needs team at the CAVC consists of a director of special needs, a coordinator of special needs program, a counselor of the handicapped, two counselors of disadvantaged, one teacher of disadvantaged, a work study coordinator and a resource room teacher (provided by the Intermediate School District). A professional staff of four -- the coordinator of special needs, the counselor for the handicapped, the work-study coordinator and the resource room teacher -- work primarily with the handicapped. The special needs personnel generally have B.A. degrees in education or special education and M.A. degrees in special education, counseling or teaching the disadvantaged.

The special needs team provides the bulk of the supportive services for handicapped students. One member of the special needs team is assigned to every handicapped student enrolled in CAVC (an average of 35 students per member). This approach does not prevent other persons on the special needs team from working with the students, but it does make certain that no one will go unattended. The special needs team members provide remedial reading and math assistance and to vocational, social, and personal counseling for any student who needs help. They also serve as liaison in resolving student/instructor difficulties. They counsel instructors on how to approach difficult students. They have written instructor's handbooks for the teaching of the handicapped and the disadvantaged. The highly effective referral system in practice at CAVC operates via requests for the special needs team to assist on a problem. It is referred to as "instant communication."

Several examples illustrate the effectiveness of this referral system. An educable mentally retarded girl was referred to the special needs team by her instructor because she was day-dreaming and not participating in class. A team member talked to the girl about what the instructor had reported. The team member related the classroom situation to a job situation and asked the girl what would happen if the instructor had been a supervisor noting such behavior. The girl's behavior changed for the better according to her instructor. As follow-up, the team member still visits the classroom to observe the girl's behavior. In another case, a disadvantaged girl was referred by her classroom instructor who thought she needed glasses. A team member drove the girl to a school district vision-testing service and took her to an optician the next day. The member also immediately contacted the Lions Club which paid for the glasses.

A key factor in the success of the program is the mobility of the special needs team members who spend their time visiting program areas and working directly and without delay with students and teachers. Their availability and visibility permit them to become accepted in the classroom. A dramatic illustration of the value of mobility occurred when a team member observed an emotionally disturbed student walking strangely in the classroom. The student was continually reaching for the wall for support. The member escorted the student to the nurse's station, and after questioning, discovered that the student had taken an overdose of a prescribed medication. The parents, home school, and doctor were immediately contacted. The team member drove the student to the hospital where she stayed for three days. The student has returned to school, and the team member is continuing to work with her in counseling sessions. The special needs team member has also arranged with the doctor to keep the student's medication in his desk and to dispense the proper dosage to the student each morning. This arrangement has evolved to where the special needs member leaves the bottle of medication unattended on his desk, and the student takes her own daily dosage. Because the special needs team works with all students who need assistance, there is no stigma attached to any student who received help. All CAVC staff members work together and feel free to call on one another for assistance in handling a student. The special needs team acts as a bridge between the instructors and students.

A resource room and teacher (a member of the special needs team) are available primarily for assisting students with problems in reading, language and math. The teacher takes students out of the vocational classes to work with them in the resource room and also spends time in the vocational areas providing tutoring help. The majority of the students served are handicapped and disadvantaged. The CAVC also has a learning resource center that serves all students and faculty. It provides visual aids, media, and instructional materials. In-service workshops on special needs students are held twice a year for all instructional staff. Central Michigan University also provides information to both the vocational education staff and the special education teachers at the home schools.

Monitoring Student Progress

CAVC has a systematic approach to monitoring student progress. Progress is evaluated by the teacher on the basis of the student's completion of employable entry-level job skills. Employers are provided information on the specific job skills achieved by program graduates. The services provided each handicapped student are coordinated and monitored by a special needs team member. Four times a year, a student progress report (Exhibit 6) is completed by the instructor and signed by the student. The reports are sent to the home school and the parents and are provided to potential employers upon request. All significant activities regarding each handicapped student are recorded in a centralized student file.

Placing the Student

Vocational instructors have primary responsibility for job placement of students. They place many of their students -- in some cases even finding a job in the community and training a student specifically for that job. Many instructors formerly worked in industry and have contacts in their occupational area. Placement is part of the vocational instructors' regular duties and it is specified in their contracts. Instructors perform about 70% of the placements. For the handicapped, often the special needs team, the Type C consultant and the Vocational Rehabilitation Service counselor provide assistance, either individually or jointly. About 20% of the placements of the handicapped have been achieved by special needs team members. CAVC also has a director of placement and a placement counselor. The director, in addition to assisting with the placement of students, surveys the employment situation in each of the occupational training areas in the community and provides his findings to the instructors and counselors. He is responsible for about 10% of placements.

Exhibit 6

Nurse Aide	Nurse Aide	6-6-73
Program	Job Training	Date
Charlotte	Central	R. Glass
Student Name	Home School	Instructor

Assessment Information:	**Student Commitment:**	**Days**
1.	learn to be a nurse aide	Absent: 24
2.		Tardies:
3.		Grade: B+

LEVELS OF COMPETENCY ACHIEVED FOR EACH LEARNING UNIT - MODULES

	70-100%	70-100%	70-100%	70-100%	70-100%
	Bed and the Bedside unit 1	Personal Care 1	Vital Signs & Graphing 1	Communication Skills 1	Lifting, Moving Transporting 1
Test					
	Nutrition & Feeding 1	Prevention of Decubitus 1	Patient Environment & Surrounding 1	Pre-Post Operative Care 1	Special Treatments 1
Test	A	B			B
	Hot-Cold Applications 1	Admission Transfer Dis-Charge 1	Collection of Specimen 1	Care of the Dying Deceased Patient 1	Isolation 1
Test		A	B	A	
	Assisting the Physician 1	First Aid Skills 1	Employment 1	Care Study 1	Terminology
Test				C+	C

Key: 1. Completed Unit - Employability Range, 70-100%
2. Still working on Unit
3. Didn't complete Unit
4. Didn't start Unit

Comments:

Total hours of on-the-job training - 110. Has progressed well through the program, learning all of the tasks. Will receive a certificate stating she completed the one year nurse aide program. Quality of patient care has improved greatly since the beginning of the year.

Although the responsibility for student placement is formalized, the placement procedures are not. Since so many persons have a role in placement, there are almost as many procedures as participants. Each instructor has his own job sources, contacts, methods in obtaining jobs and degree of involvement in helping students obtain their jobs. Student capabilities are described to employers by staff members attempting to place students in jobs. Student progress reports provide information on a student's specific job skills. In 1972, the only year in which CAVC reported separate results for handicapped graduates, 21 out of 26 handicapped students were employed for a placement ratio of 81%. Of the five unemployed, three had held jobs since graduation, making initial placement ratio 92%.

Follow-Up

An annual follow-up questionnaire on job status is sent to all students (including handicapped) who completed their CAVC studies the previous year. A telephone follow-up is made to those who do not respond to the questionnaire. In 1972, 97% of the graduates were included in the survey. These questionnaires are the primary source of job placement and job retention data.

There is an informal follow-up program for graduates conducted by instructors, special needs team members and Type C consultants. A student who loses his job will often return to the Center for advice and assistance from an instructor or counselor. Vocational Rehabilitation Services also provide followup services for the handicapped.

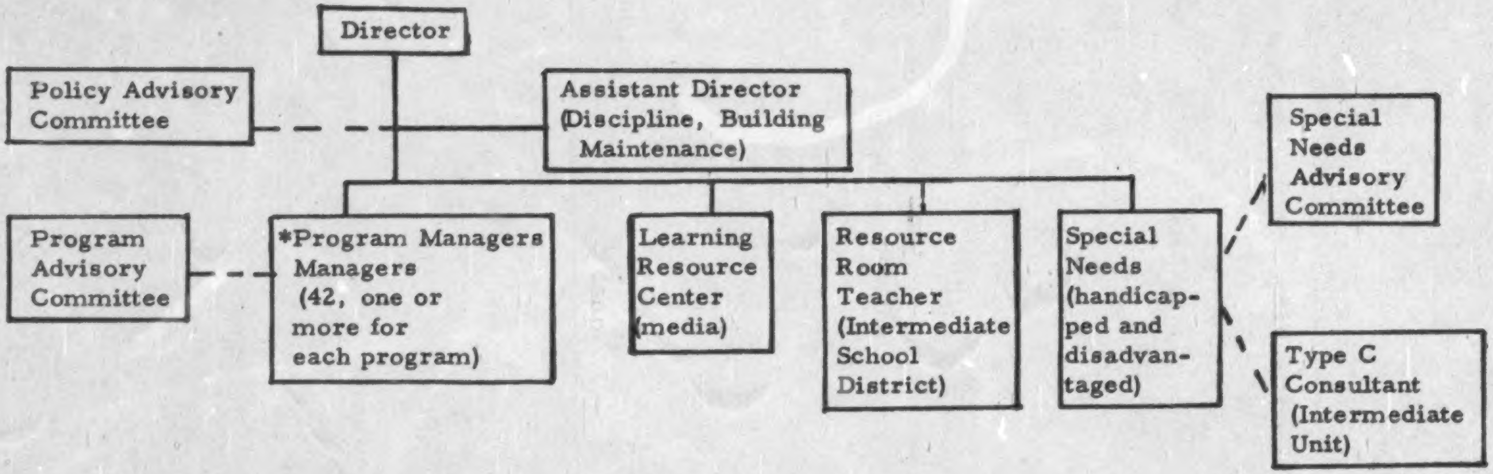
Managing the Program

Care of the physical plant and student discipline are the responsibility of the assistant director. The managers of program operation activities report directly to the director. Each of the occupational areas has a program manager who is responsible for program development and operation in that area. The special needs team and the placement personnel report to the director of special needs. The organizational structure is displayed in Exhibit 7.

All significant activities regarding each handicapped student are recorded in a centralized student card index file. In keeping with the philosophy

Exhibit 7

CALHOUN AREA VOCATIONAL CENTER ORGANIZATIONAL CHART


Director
Policy Advisory Committee
Assistant Director (Discipline, Building Maintenance)
Program Advisory Committee
*Program Managers Managers (42, one or more for each program)
Learning Resource Center (media)
Resource Room Teacher (Intermediate School District)
Special Needs (handicapped and disadvantaged)
Special Needs Advisory Committee
Type C Consultant (Intermediate Unit)

of rapid and free flow of information, the file is maintained in the teacher's preparation room in the center and is shared by the special needs staff, vocational rehabilitation counselors and Type C consultants.. Everyone working with a student is required to make an entry when there is some change in student status, service performed or anything else of significance. The cards are maintained for students for three years after graduation to record follow-up information.

Special needs personnel generally have a B.A. in education or special education and an M.A. in special education, counseling, or teaching the disadvantaged. A fuller description of these members working primarily with the handicapped is contained in Exhibit 8. The vocational instructors at CAVC are about evenly divided between those who have a B.A. or M.A. in education and those who have a vocational certification (experience without a formal degree). The summary background for instructional staff for 1972-73 is given below:

Degree/Certification	Number
B.A. or B.S.	9
M.A. or M.S.	2
Vocationally certified	15
Specialist vocational education	4
B.A. or B.S. with vocational certification of specialist rating	8
M.A. or M.S. with vocational certification or specialist rating	4
Total	42

The special needs director and the administration of the Calhoun Area Vocational Center stress the importance of recruiting effective staff members and feel that not all teaching skills are acquired in a university. In filling an opening for a special needs team member, candidates were found by reviewing the job application file of the Battle Creek School

Exhibit 8

Special Needs Personnel for the Handicapped

	Number	Job Description	Qualifications
Director	1 (1/4)*	Supervises special needs staff; administration, public relations; coordinator with other agencies	Director of Guidance Services at CAVC prior to creation of Special Needs team.
Coordinator	1 (3/4)*	Assist and supervise counselors; coordinate programs for handicapped and disadvantaged; in-service training for instructional staff; program development and evaluation	B.A. in Elementary Education, M.A. in Counseling, Special Education teacher 3 years, Type C Consultant 4 years
Work Study Coordinator	1 (1/2)*	Identify and screen potential student participants; obtain jobs for students; place students in program; monitor progress; counseling	B.A. in Special Education, Special teacher for 11 years
Counselor for Handicapped	1	Develop individual training programs; assist in proper placement in CAVC training; counseling for student and instructor	B.A. in Secondary Education, M.A. in Educational Administration

*Estimated proportion of time devoted to handicapped

District and by placing job descriptions at the leading universities in Michigan. As a result, more than 150 applications were reviewed. The director of special needs asks people-oriented questions and sets up situations for the candidate to react to.

Special needs team job functions are described in terms of performance and process objectives. The staff members are evaluated on the basis of how well they fulfill their objectives. The director formally evaluates all staff members twice a year and holds regular conferences with them four times a year. Exhibit 9 provides a sample staff evaluation including performance objectives.

In developing the annual budget and plan, the director and coordinator of the special needs program, with input from special needs team members, vocational instructors, CAVC administration and school district personnel, go through a planning process. They estimate the expected number of handicapped and disadvantaged students that will be attending CAVC, the vocational areas in which they will be placed, the services required from the special needs team to support these students and the resources (personnel, materials, equipment) necessary to provide the services. The costs of the resources are estimated and these are formulated into a budget. The budget, when approved, becomes the management and control document for the special needs program.

The prime source of operating funds for the Center is a one-mill tax voted by the citizens of Calhoun County. The special needs program, exclusive of CAVC costs, was originally funded by a project grant from the Vocational Education and Career Development Services, Michigan Department of Education, and a special education reimbursement from the Intermediate School District. The mix of funding for special needs from these sources over a two-year period is shown below.

Funding Source	1972-73		1973-74	
Vocational Education grant	$33,473	73%	$51,826	62%
Special Education reimbursement	12,400	27%	32,400	38%
Total	$45,873	100%	$84,226	100%

Exhibit 9

CALHOUN AREA VOCATIONAL CENTER
EVALUATION OF THE SUPPORTIVE TEAM MEMBERS

(Please review so that you can respond to the content in this evaluation)

SPECIAL NEEDS MEMBER: Mr. A DATE: Dec. 13, 1973

PEFORMANCE OBJECTIVE TO BE EVALUATED	COMMENTS
Aid to Staff (Performance of Job Role)	A has made a good effort to become acquainted with new staff members at Branch & Calhoun. He feels, however, that there is still room for improvement. Appears to be doing an adequate job in his new role-continually working to improve as he becomes more familiar with the role and the expectations of the instructional and administrative staff.
Developing appropriate community contacts with agencies, local schools, business & industry.	A's contacts with social-helping agencies are still vital to his game plan. Knows how to utilize them effectively.
Working relations with staff	Very positive!
Student assessment (How do you relate with students?)	He relates with students extremely well and has been most effective.
Management & organization, budget of time, activities, teacher conferences, etc.	Management and organizational aspects are quite good. We need to alter the time between Branch and Calhoun to enable B to assume more responsibility at Branch. Thus, A will spend more time at the CAVC and more time for curriculum development for the students.
Program-curriculum, development and implementation (Plan of Action)	A is heading in the right direction and much has been implemented at Branch. The plan of action is working. Needs some modifications.

Exhibit 9 (cont'd)

PERFORMANCE OBJECTIVE TO BE EVALUATED	COMMENTS
Placement and follow-up	A has been of assistance either through personal recommendation, providing pertinent information about students or by knowing the prospective employer. One follow-up has been completed nother will be completed in summer of 1974.
Follow-through on projects, assignments, referrals, etc.	Excellent - even though we need to organize work and planning more effectively. A handles all deadlines, etc. very effectively.

I. What are my priorities for the next five months?

1. To develop two individualized training packets to be implemented in operating training program and used as prototypes for further development of modules to be plugged into any program when the need of students requires special programming.
2. Rewrite proposals to include student performance objectives - learner outcome.
3. Follow-up to include all special needs students, graduates and all others.
4. Work to involve other team members and program managers in the development of individualized prescriptive modules.
5. Monitor the activities regarding statements placed in the centralized file.

II. What assistance will I need to accomplish the priorities?

1. Program managers assistance

2. Special needs team input

Special Needs Director

Special Needs Member

There are additional costs that could be charged (or allocated) to the education of handicapped students at CAVC. At the present time, they are taken out of general operating costs or, in the case of the resource room teacher, supported partially by the Intermediate School District and are not a part of the special needs budget. The vocational instructional costs for the handicapped are not identified separately but are part of the total instructional costs of the Center. The budget shown in Exhibit 10 is presented in two segments: the budget for the special needs team and the overall costs of the CAVC -- allocated to the handicapped population on a proportional basis.

The special needs program at CAVC continues to operate and to improve on its basic concept of allowing handicapped students to progress both socially and vocationally toward an integrated working environment by including those students in integrated classrooms from the outset. The quality and responsiveness of the services provided by the special needs team members is the key to success of the program.

Exhibit 10

CAVC Estimated Budget for the Handicapped

Funding Source	1971-72	1972-73	1973-74
Special Needs			
Salaries and Benefits			
Administrative	$ 5,550	$ 7,425	$ 24,671
Instructional	8,500	11,912	9,720
Counseling	3,475	7,400	12,005
Total Salaries	17,525	26,737	46,396
Equipment	-----	------	1,000
Instructional Supplies	327	2,000	3,260
In-Service Education	500	236	-----
Program Development	4,500	4,500	1,200
TOTAL GRANT	$ 22,852	$ 33,473	$ 51,856 [2]
Special Education Reimbursement from Intermediate School District	------	$ 12,400	$ 32,400 [2]
CAVC Allocated Costs			
Special Needs Director (1/3 of time for handicapped at CAVC)	$ 4,400	$ 4,700	$ 4,800
Learning Resource Center (1/2 for handicapped)	6,500	6,500	6,500
Instructional Staff (approximately 8% of CAVC students are handicapped)	38,500	50,600	48,700
Teacher Aides (8%)	1,400	3,000	3,000
Materials and Equipment (8%)	4,900	4,700	6,900
Administration (8%)	7,300	9,400	9,600
Total Allocated Costs	$ 63,000	$ 78,900	$ 79,500 [3]
TOTAL PROGRAM COSTS	$ 85,852	$124,773	$163,756
Number of Handicapped Served	105	112	160 [2]
Cost Per Student	$ 1,635 [1]	$ 1,115	Not Applicable

1. Adjusted to full year basis
2. Includes Branch AVC
3. CAVC only

EMPLOYMENT ORIENTATION PROGRAM
CAMDEN COUNTY VOCATIONAL & TECHNICAL SCHOOLS
SICKLERVILLE, NEW JERSEY

The division of special needs is one of three day-school divisions at the Gloucester Township Campus, one of Camden County's two vocational-technical schools. The other two divisions are the regular division and the post secondary division. The special needs division operates an Employment Orientation Program (EOP) for the handicapped and disadvantaged. The program attempts to place students in regular vocational classes whenever possible. The program also operates segregated special needs classes and vocational cluster shops, where students are taught basic skills while being evaluated in terms of their potential for integration into regular vocational classes. There are four shops in the segregated vocational program, each built around the cluster concept. The four shops are small engines, food and business, building trades and plastics. The program began in 1970.

EOP is able to serve a wide variety of high school students (9th through 12th grades). Of the 150 students enrolled during school year 1972-73, 77 were educable mentally retarded students, 19 were perceptually impaired, nine were neurologically impaired, three were emotionally disturbed, one had a visual handicap, one was hard of hearing, one was speech impaired, 13 were socially maladjusted, and 26 were classified as disadvantaged. Seven of the 150 were multi-handicapped. Students range in age between 13 and 21 years of age, with 82 percent between 16 and 18 years old. There are now about 100 students on the waiting list for the program.

The program is staffed by a director, 11 teachers, three paraprofessionals, a cooperative work-study coordinator, a special needs counselor, and a child study team composed of a social worker, a psychologist, and a learning disabilities specialist. The child study team evaluates and monitors students as they progress through their vocational training.

EOP is noteworthy because of its graduated approach to providing an occupational education from general pre-vocational to specific skill training while also providing a gradual transition from a segregated school environment to an integrated work environment.

Setting Up the Program

In 1968, the Superintendent of Camden County Vocational & Technical Schools was convinced by the County Child Supervisor that a special education program was needed in the vocational schools. An advisory committee was formed consisting of representatives from industry, business, various handicapped groups, and state agencies. A Title VI, ESEA grant was applied for and received from the State Department of Education to survey the need for vocational education for the handicapped in New Jersey. The study revealed that there were more than 3,000 students (kindergarten to twelfth grade) in the county with "special needs."

The advisory committee decided that the projected program should include work evaluation, diagnosis and basic skill training. The program began operation in 1970 with 60 special needs students. Initial funding was provided under the Vocational Education Amendments of 1968. During its first three years, EOP was heavily supported by federal money. Current funding of operating costs is provided almost equally by federal, state and local sources.

Camden County, the eighth largest county in New Jersey, encompasses two cities, 27 boroughs, and eight townships. The County borders on Philadelphia -- a mixture of urban, suburban, and rural areas. It has a total population of 456,291 and a school-age population of approximately 100,000. The major employers include Campbell Soup and RCA.

Camden County has a very extensive vocational program now serving 10,000 students including adults. The county supports two vocational high schools (Gloucester and Pennsauken) and two regular high schools with vocational wings.

The state provides money for 50 percent of the salaries of those who teach, administer, supervise and provide child study team services to eligible students. The state mandates a multi-disciplinary approach in the identification, classification and placement of students. Local education agencies must provide or use the services of a child study team which is responsible for re-evaluating handicapped students every three years after the initial evaluation. The child study team reviews each student's progress with his parents once a year. If a student is having problems, the team meets with the parents every marking period (academic quarter). Parents are also consulted about student placement and invited twice yearly to open houses at the school.

Identifying Students

Although application or actual referral to EOP is made for a student through the student's local school district personnel in Camden County, EOP mobile trailers are usually the first point of contact with prospective students. EOP maintains several mobile vocational trailers which serve a dual role as stimulant for future referrals of prospective students and as vocational evaluation and exploration units. There are occupational awareness programs for pre-high school age students in some districts of Camden County, but for many students, the mobile trailer is the first contact with vocationally-oriented education.

The unit is taken to a district elementary or junior high school and remains for four weeks at a time. Students spend a two-hour period each day in the unit. It takes between one and two days for most students to complete each area or about three weeks to complete all 10 vocational areas. The local district sends seventh and eighth-grade students who are propsective vocational education students to the unit. The mobile units visit each district at least once every two years.

In addition to the vocational exploration aspect of the mobile units, they are designed to develop initial vocational profiles of special needs students. Each unit is equipped with commercially developed programs in 10 separate evaluation work stations:

1. Basic tools
2. Drafting
3. Bench assembly
4. Electrical wiring
5. Plumbing and pipefitting
6. Needle trades
7. Clerical sales
8. Welding and soldering
9. Air conditioning and heating
10. Woodworking and carpentry

The unit provides for "hands-on" work simulation, tests of adaptive behavior and isolated-trait work samples. Very little reading skill is required. The students receive their instructions from tapes. They are shown what they are supposed to do on a video projector and then proceed to do the assignment with the equipment and supplies provided. The supervisor (a certified vocational instructor) intervenes at five to six "checkpoints" in each program.

Performance is evaluated on the basis of time required, quality of the finished product, and the level of difficulty attained. For comparison, time and quality standards are provided in the program operations manual. Student work habits are observed. Interest in vocational areas is guaged by means of an interest rating form, which the student completes during the program and a picture interest form which he completes after finishing all 10 vocational areas. A vocational evaluation report is prepared by the unit vocational teacher for each student and provided to the school guidance counselor. The vocational teacher also provides vocational counseling and holds conferences with the students at least twice during the program. The initial vocational evaluation by the mobile unit is often a valuable source of information on applying students. As a source of referrals and future applicants, it reaches many students who might never have been exposed to or considered vocational education.

The outreach aspect of the mobile units is amply demonstrated in the case of Joan, a 14-year old retarded student. Prior to a visit by the mobile unit to her school, Joan had not been previously exposed to any vocationally-oriented programs because her school offered none. When the mobile unit visited her school, Joan was processed through the vocational diagnostic sequence described previously. She demonstrated excellent potential in the carpentry area and, as a result, her school submitted an application to EOP for her. She was admitted to the summer program for further exposure prior to beginning at EOP in the fall. Her performance indicated initial placement in the basic carpentry shop within the building trades area with potential eventual placement in the cabinet-making shop.

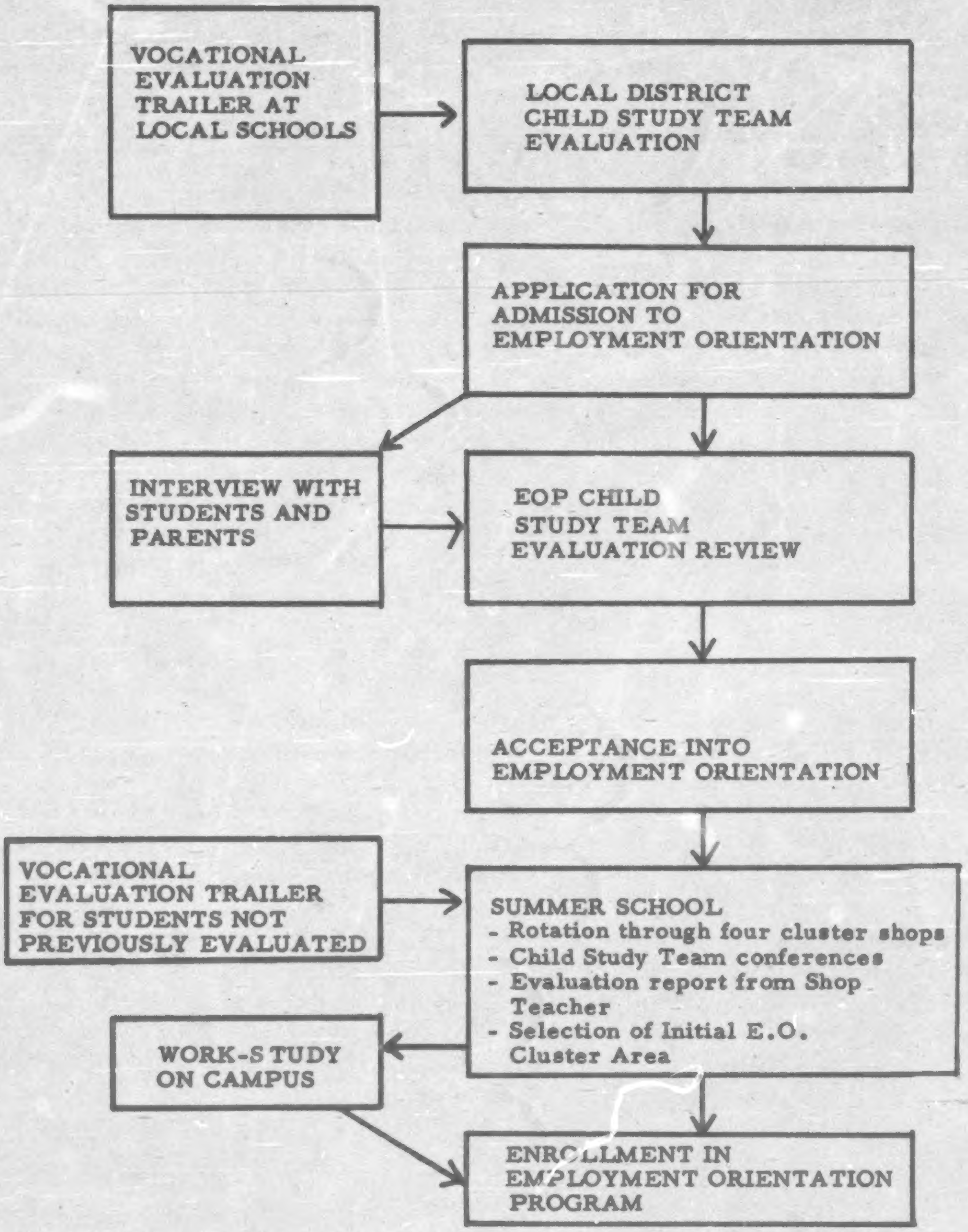
Admissions Process

Initial vocational evaluation by the mobile unit is often available as information on applicants. It is not mandatory for admission, however, beacuse of the summer program to be described later. The EOP will accept all students with special needs (up to its capacity) except those classified as trainable mentally retarded or severely emotionally disturbed. The admissions process is shown in Exhibit 11.

Application to the program must be made through the student's local district. Priority is given to students from school districts in Camden County. The EOP is designed for special needs students who require specially designed educational programs or related services. "Special needs" pupils are defined as those having physical, mental, or

Exhibit 11

ADMISSION AND INTAKE PROCESS


VOCATIONAL EVALUATION TRAILER AT LOCAL SCHOOLS
LOCAL DISTRICT CHILD STUDY TEAM EVALUATION
APPLICATION FOR ADMISSION TO EMPLOYMENT ORIENTATION
INTERVIEW WITH STUDENTS AND PARENTS
EOP CHILD STUDY TEAM EVALUATION REVIEW
ACCEPTANCE INTO EMPLOYMENT ORIENTATION
VOCATIONAL EVALUATION TRAILER FOR STUDENTS NOT PREVIOUSLY EVALUATED
SUMMER SCHOOL
- Rotation through four cluster shops
- Child Study Team conferences
- Evaluation report from Shop Teacher
- Selection of Initial E.O. Cluster Area
WORK-STUDY ON CAMPUS
ENROLLMENT IN EMPLOYMENT ORIENTATION PROGRAM

environmental handicaps that prevent them from succeeding in regular vocational programs. The student must not have any serious physical or emotional disability that would jeopardize the safety of other students. All applications must be accompanied by a district child study team evaluation prepared no earlier than one year before. They are reviewed by the EOP child study team. Students being considered for acceptance must accompany their parents for an interview. If the student is accepted, he is encouraged to attend a summer evaluation program for manual skill and motivation assessments prior to school year placements and 95% do so.

The eligibility of students is based on age (14-17) incidence of handicaps and the availability of alternative programs for handling that handicap. Students with low-incidence handicaps have higher priority for admission. The sequence of incidence from low to high in Camden County is as follows:

1. Multiply handicapped
2. Visually handicapped
3. Communication handicapped
4. Orthopedically handicapped
5. Auditorily handicapped
6. Neurologically impaired
7. Emotionally disturbed
8. Socially maladjusted
9. Perceptually impaired
10. Educable mentally retarded

All candidates considered eligible are organized into two subcategories based on the highest potential for success in this program. Before being included in one of the categories, the child's psychological, educational, and social background is thoroughly investigated by the child study team. The first group consists of candidates whose evaluations and personal interviews indicate levels of intellect, academic achievement, emotional stability and familial support readily conducive to vocational instruction. This group receives top priority for acceptance within their respective handicap areas. The second group is composed of acceptable candidates whose evaluations and interviews suggest that they have inconsistencies in ability (academic or performance), emotional stability, or environmental support that could interfere with successful performance in the program. These candidates are admitted if there are openings after all of the first group applicants within their handicap area have been enrolled. All candidates in both categories within a handicap area must be accepted before drawing students from a higher-incidence handicapped group. All acceptable candidates who are not accepted during a year because of lack of space, are given top priority the following year if they still wish to be admitted. Rejected applicants may reapply the following year if there is a change in any of the factors that led to the rejection. The applying district is also directed to other programs for students who are not accepted.

The four-week summer school program, which new students are encouraged to attend is offered in July of each year for entering freshmen. This program is designed to orient students to the school, familiarize them with the campus and to evaluate student interests and capabilities. During the summer, the students are rotated through the four cluster shop areas of small engines building trades, business/foods, and plastics production. The shops last for 2½ hours from 9:00 a.m. to 11:30 a.m. From 12 noon to 3:00 p.m., students can also participate in a paid work-study program. Students take general care of the school grounds and buildings and are supervised and evaluated; they receive the minimum wage for their work. In 1973-74, 40 students participated in work-study. The student spends one week in each cluster shop area. Each week, child study team members hold student conferences to provide vocational counseling. Each student has at least three such conferences during the summer, plus a final conference to determine the employment orientation cluster area he should enter for the upcoming school year. Exhibit 12 shows the summer school curriculum. As a result of the student assessments performed during the summer school session, incoming students have been placed directly into regular vocational shop classes bypassing the initial segregated cluster shops phase of the program.

If an entering student has not had a prior vocational evaluation report from the mobile evaluation trailer, he is evaluated during the summer. The summer school is staffed by a director, four shop teachers, two work-study supervisors, two bus drivers and the child study team.

Meeting Student Needs

The EOP offers a comprehensive set of program alternatives for its students ranging from self-contained, segregated classes through full

Exhibit 12

SUMMER SCHOOL CURRICULUM

CAMDEN COUNTY VOCATIONAL & TECHNICAL SCHOOL

SPECIAL NEEDS DIVISION, SUMMER SCHOOL ________
MO. /YR

GLOUCESTER TOWNSHIP CAMPUS

STUDENT ACTIVITIES AND EVALUATION REPORT

STUDENT NAME: ______________________________
LAST FIRST

STUDENT ACTIVITIES

GENERAL -- SAFETY, GOOD HOUSEKEEPING, ATTITUDES AND COOPERATION

I. BUILDING TRADE SHOP
  A. Measuring and layout
  B. Use of handtools
  C. Squaring edges
  D. Nailing and gluing
  E. Sanding and finishing
  F. Use of drill press
  G. Use of coping saw, bandsaw and jigsaw

II. SMALL ENGINES SHOP
  A. Auto tune-up (demonstration boards)
  B. Soldering and wiring electrical circuits
  C. Basic operation of 2 cycle engine
  D. Basic operation of 4 cycle engine
  E. Orientation of engine servicing

III. PLASTIC SHOP
  A. Use of time cards and production work
  B. Operator of plastic machines
  C. Trimming, inspection and hand assembly
  D. Packaging, taping and stenciling
  E. Shipping and receiving of materials

IV. BUSINESS & FOOD SHOP (Clusters: sewing, business machines & foods)
  A. Cutting and hand sewing
  B. Use of sewing machines
  C. Use of office duplicating machines
  D. Basic food preparation

V. WORK PROGRAM
  A. Use of hand tools
  B. Care of grounds
  C. Care of buildings

integration into a regular program. There is a wide range of program options and a great deal of flexibility regarding when and how a student progresses through the program. Every effort is made to prepare students for entry into regular vocational education programs. The EOP provides students with a foundation of attitudes, work habits and basic skills before integrating them into a regular vocational shop. Support is also provided the students and the regular shop teacher after transfer into the regular program. Student transfer and program placement are reviewed and approved by the child study team and the guidance counselor.

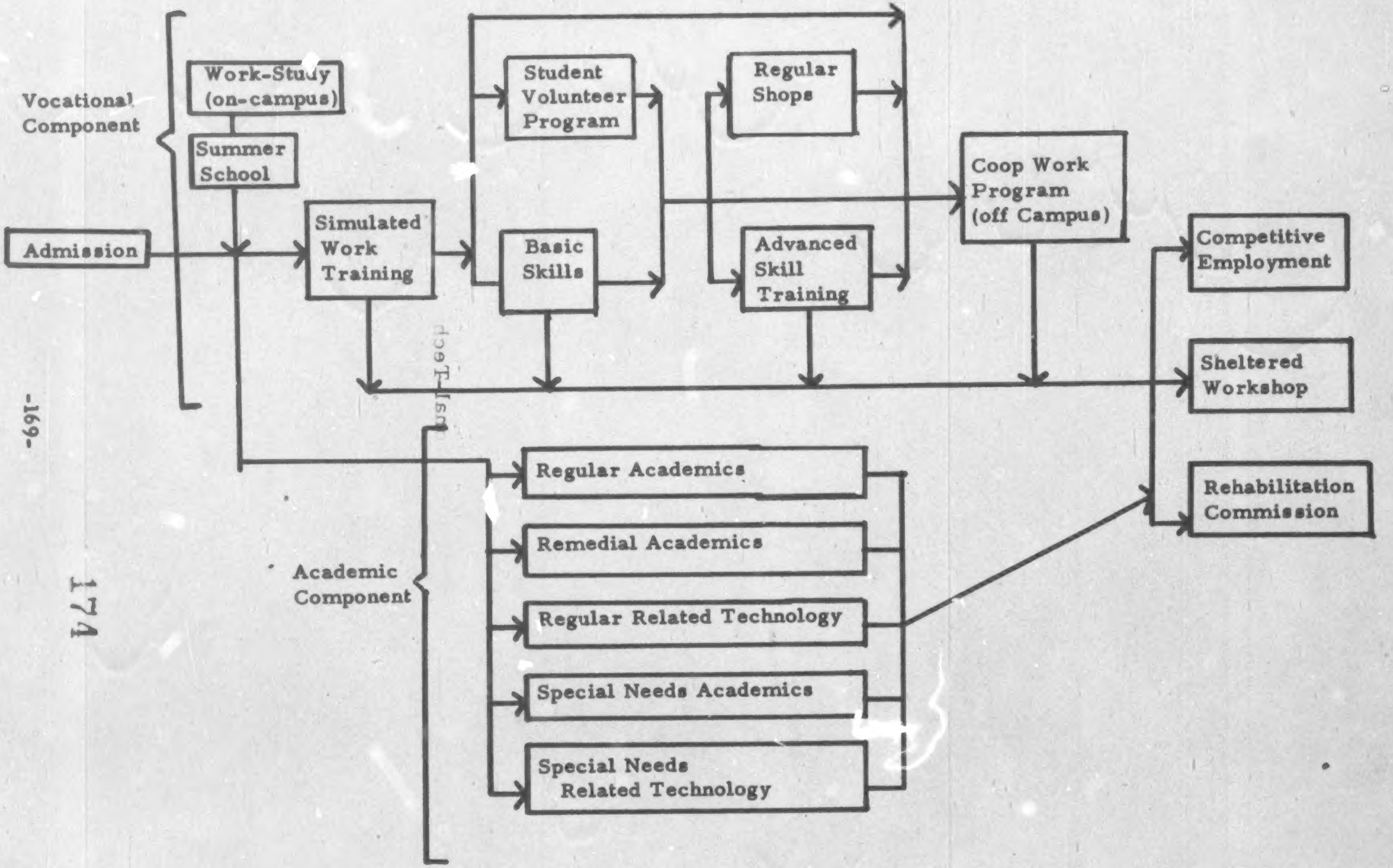
The strength of the program is its flexible programming. The EOP is designed to offer the student a graduated series of vocational education packages which begin with general, pre-vocational type skills and rise to specific job-related skill training. The student's growth of vocational skills is supplemented by a parallel graduation in working environment; from a segregated school environment to an integrated competitive working environment. The transition among the steps in this parallel growth is smoothed by a continuing evaluation process for which the EOP child study team is primarily responsible. Exhibit 13 displays the flexibility of the program's vocational and academic educational progression.

The program attempts to place students in competitive employment appropriate to their abilities. The specific objectives are: to reduce the school drop-out rate; integrate the handicapped into the regular vocational school as soon as practical; and provide an individualized program for each student. Other objectives are to prepare each student for employment congruent with his potential, provide an educational environment where each student may succeed at his own rate, develop a corrective program for any child not succeeding in his own program and develop vocational maturity and employer-employee relationships.

The Gloucester Township Vocational-Technical School, of which the EOP is only part, is situated in the southern half of Camden County, New Jersey. There are currently seven buildings, with a capacity for 1,600 students (150 of whom are in EOP), now in use. The school was built at a cost of $10 million. The EOP has two shops and two classrooms adapted to vocational shops. Additional facilities are planned to serve a larger student population. The new complex will accommodate 800 handicapped day students and 3,000 handicapped evening adult students. It

Exhibit 13

STUDENT PROGRESS FLOW CHART



will include 11 shops, an automotive service center, a retail center, a greenhouse, a learning resource center, a swimming pool for physical therapy, a multi-media center and a diagnostic and evaluation center.

The program begins with two separate pre-vocational phases. Simulated work training provides work adjustment training and evaluation when the students first enter the program. After the students acquire constructive work habits and attitudes, basic skills training provides vocational exploration, evaluation, and basic skills preparatory to entering a specific skill shop. Simulated work training is primarily conducted in the plastics shop cluster although there are opportunities in other shop areas for simulated training.

The plastics shop is formally organized as the Empor Plastics Company. It produces plastic goods such as public relations materials, picture frames and utensils and kitchenware for county institutions. Students perform tasks on the assembly line and are rotated through work stations for receiving goods, stocking, mixing, trimming, inventory, injection molding machine operation, inspection, packing, stamping, sealing and quality control. As students are rotated, work aptitudes and attitudes are closely observed by the instructor; some students are given inspection and supervisory responsibilities. As an incentive, students earn credits toward school store purchases. The primary purpose of this school is to train students in atmosphere of actual on-the-job conditions. The concept of establishing a company to produce a marketable product or service provides a nearly actual job environment while also producing some income to subsidize this learning environment.

The second half of the pre-vocational training is the basic skills phase. Following the simulated work training step, a student is rotated through two of four cluster shops for further exploration, evaluation, and initial skill training in the shop area where the student has demonstrated interest and ability. Skills learned in these shops will be immediately relevant to the specific skill training the student enters in the succeeding phase.

The four cluster shop areas are:

Small Engine -- includes clusters on small engine repair, automotive tune-up, electronic assembly and drafting.

The Building Trades Shop -- has clusters on woodworking and carpentry, plumbing, electricity, and sheet metal.

Business and Foods -- includes clusters on food preparation, nurses' aide, business machines, sewing, distributive education, laundry, and horticulture.

Plastics and Silkscreening -- has courses on plastics, silkscreening, building maintenance, warehousing and assembly line operation.

The student volunteer program provides part-time learning experiences (off-campus) in non-profit organizations for no pay and under the supervision of a school coordinator. It may be a substitute or supplement for the basic skills phase. Each of the four shops is organized into several clusters within which there are skills to be achieved. The clusters are ranked by difficulty within each shop to allow the student to progress on a graduated basis. The building trades shop has five clusters: woodworking, electrical, masonry, plumbing and metalworking.

Progress charts are maintained on each student by the shop teacher as satisfactory task performance is demonstrated. They become part of the student's evaluative record and are included in the student file. Basic skills tries to motivate the students through success-oriented projects. In the building trades cluster, for example, projects include building small scale house models, tool boxes and grandfather clocks. They are relatively complex, take-home type projects that are employed to build a student's esteem in the eyes of parents and friends. Instruction depends on pictorial illustrations and demonstrations so that no reading or writing is necessary. Constructive work habits are encouraged. Students are required to fill out time cards and punch in and out on a time clock. They are also required to pass safety examinations once a month. The Non-Verbal Aptitude Test Battery (NATB) or the General Aptitude Test Battery (GATB) is administered to those students who are having a problem in choosing a shop area or who do not show any particular interest or aptitude.

The basic skills phase, generally completed by the end of the ninth grade, prepares the student either for entrance into the integrated vocational training, shops, or into segregated advanced skills training shops, or a cooperative work experience program.

Students transferring to the regular vocational program are interviewed by the child study team two weeks prior to transfer. A written instructional plan is then prepared for integrating the student into the regular program. The plan is an individualized prescription for the vocational and academic courses most appropriate to the student's abilities and interests. The prescription is provided in a student transfer form which describes the impairment, probable causes of impairment, capabilities, and recommendations to the vocational teacher on appropriate program modifications. The vocational instructor, guidance counselor, and learning disabilities teacher meet prior to the student's transfer to discuss potential problems, skills, what to expect in terms of behavior, program modification and special equipment or tools.

Each area has a quota of positions for special needs students, varying with the size and demand for each course. Typically, only 25 percent of the students in any shop can be special needs students. This is designed to prevent a special needs shop environment from developing. Exhibit 14 provides a list of special needs students in each regular shop in the 1973-74 school year.

The special needs students are not identified as such in the regular classroom. Some have performed better than the regular students. In one year, the Auto Body Award went to a handicapped student. Regular shop instructors have confidence that students sent to their shops are well prepared and capable of reaching an employable level.

Support to the regular shop instructors is provided in several ways. The special needs division will pay the salary of a teaching aide for those classes with a large number of special needs students. The masonry shop, for example, with ten handicapped students has a teaching aide provided by special needs. The child study team and the special needs guidance counselor develop training recommendations for special needs students which are discussed with the regular teacher. Finally, the child study team and guidance counselor help with any problem the regular teacher may encounter. Child study team members routinely visit shops, and regular shop teachers submit progress reports on their special needs students at the end of every marking period.

Exhibit 14

SPECIAL NEEDS STUDENTS IN REGULAR SHOPS

SHOPS	EMR	SM	PI	NI	ED	DS	TOTAL
Auto Body Shop	5	1	4	-	-	-	10
Automatic Heat	-	-	-	-	-	2	2
Auto Mechanics	5	2	-	1	1	5	14
Baking	1	-	-	-	-	-	1
Beauty Culture	-	1	-	1	-	-	2
Culinary Arts	2	-	1	-	-	-	3
Cabinet Making	1	-	-	-	-	1	2
Carpentry	8	-	1	-	-	-	9
Ds. Education	2	-	1	1	-	1	5
Electric	-	-	1	-	1	1	3
Masonry	8	-	2	-	-	-	10
Machine Drafting	2	-	-	-	1	-	3
Maintenance Mechanics	2	-	-	1	1	-	1
Machine Shop	1	-	-	-	-	-	1
Plumbing Shop	1	-	-	1	-	-	2
Print Shop	1	-	-	-	-	-	1
Radio and T.V.	1	-	-	-	-	-	1
Sheet Metal	1	1	-	-	-	-	1
Tool and Die	-	-	-	1	-	-	1
Welding	-	-	1	-	-	-	1
TOTAL	41	5	11	6	3	13	79

EMR - Educable Mentally Retarded
SM - Socially Maladjusted
PI - Perceptually Impaired
NI - Neurologically Impaired
ED - Emotionally Disturbed
DS - Disadvantaged Student

All shops at Camden County Vocational and Technical School employ "unitized" curricula. Each vocational area is divided into jobs defined by the Dictionary of Occupational Titles. In the baking shop, for example, the laborer baker would require the lowest level of training, the baker helper the next higher, and so on to the highest level of baker or cake decorator.

Each job classification is broken down further into the cluster of skills required to perform the job. The lowest level, simplest tasks are taught first, and a student does not advance until he demonstrates that he has learned the skill. For example, in baking, safety is taught first. When a student has demonstrated competence in safety, orientation, baking equipment-identification, tools-identification, pan washing, and general cleaning, he is qualified and employable as a laborer baker. The student would then be moved to the simplest skill of the next highest job classification. In this case, the next unit of instruction would be greasing pans under the baker's helper classification. These student skills are later explained to potential employers in terms of tasks or jobs for which they are qualified.

The EOP students may also be involved in work experience programs in lieu of or in addition to their classroom pre-vocational and vocational training. The student volunteer program has been previously described as a substitute or supplement for basic skills. Cooperative industrial education may follow or substitute for vocational training. Finally, the work-study program provides work experience on the school campus after school hours. It is supported by state and county funds and provides work for needy students who would benefit from a regular work experience. Students must be paid at least the minimum wage. The program supplements the in-school skill training programs.

Before proceeding to the related instruction sub-section, the following example of a student's experience may illustrate the flexible programming implied by the student progress flow chart (Exhibit 13) and the preceding narrative description of the program. Dan entered EOP in his ninth grade year, having come from a public school where he had received no previous vocational instruction or exploration. After a brief period in simulated work training, he entered the basic skills phase and was rotated through the small engines and building trades areas. His interest and ability pointed towards auto mechanics as an appropriate area for Dan and he entered the regular auto mechanics shop at the beginning of his second year. Dan failed to progress, however, and was brought back into basic skills for more evaluation and exploration in building trades. As a result, he was placed in the regular masonry shop for his junior and most of his senior year. Near the end of his senior year, he entered the cooperative industrial education program, graduated and was employed as a masonry helper. Dan also participated in work-study after school. His related (academic) instruction changed in accordance with his vocational selections throughout his ECP career. It was the adaptability of Dan's program that allowed him to succeed.

Related Instruction

As in Dan's case, academic training for all students is directly related to their vocational instruction. While a student is progressing through the shops or participating in work experience for four periods a day, he is also attending academic classes four periods a day. Academic instruction is available on three levels:

1. Special needs academics, equivalent to grades 1 through 5, stress reading and math.

2. Remedial reading and math, equivalent to grades 5 through 8, again stress reading and math.

3. Regular academic courses, grades 9 through 12, even if students are achieving at a lower level.

In addition to these more traditional, but related, academics, each student must attend a "related technology" course. It is a four-year required program designed to provide the student with information pertaining to a particular vocational area. Students attend the class for one period every day. Related technology courses are provided in both the regular school and the special needs division. Students from the regular shop are allowed to attend the special needs class and special needs students may attend the regular related technology classes. The curriculum outline for the related shop in the special needs division follows:

A. First Year

    1. Job introduction
    2. Blueprint reading and mechanical drawing

B. Second Year

1. Blueprint reading and mechanical drawing

C. Third and Fourth Year

1. Skill Cluster of Student's Choice

- Building Trades Cluster
  - Woodworking
  - Plumbing
  - Electricity
  - Bricklaying

- Metal Trades Cluster
  - General bench work
  - Machine shop
  - Sheet metal
  - Welding

- Engines
  - Small engines
  - Auto tune-up
  - Electronic wiring & assembly

- Plastics/Silkscreen & Custodian Cluster
  - Plastics
  - Silkscreen
  - Custodian (building maintenance)
  - Preparation for employment

2. Preparation for Employment

- Getting a job
- Taxes and withholding
- General safety
- The worker in industry and community

During the first year, the student is introduced to the various skill clusters so that he may choose a skill to his liking. Toward the end of the first year, the student begins mechanical drawing and blueprint reading which continue in the second year. The instruction and materials in the later years are tailored to specific occupational areas. The class is noteworthy because of the high level of expectation and achievement of the students.

Support Services

The quality of the supportive services provides the binding element in the EOP which allows the program to be flexible but smooth in its transitions. Most notable is the child study team. Testing and diagnosis, work evaluations and program prescriptions are performed by the team. The basic team (as mandated by state law) consists of a learning disabilities specialist, a social worker and school psychologist. Operationally, the guidance counselor is also a member of the team. The team may also call in specialists.

The child study team has the following basic responsibilities:

1. To evaluate applications for admission to the special needs program.

2. To perform diagnostic testing, evaluation, and review of every student in the program. Team members visit each EOP shop every day and regular shops twice a week.

3. To review and approve recommendations for transfer of students to the regular shop program. The approvals include recommendations for the vocational teacher on the appropriate program modifications for the handicapped students. A transfer report is prepared and a conference is held with the regular vocational teacher to discuss student needs prior to the transfer.

4. To develop corrective programs for students who are not succeeding.

5. To re-evaluate special needs students at least once every three years as mandated by New Jersey state law.

6. To act on referrals from the regular vocational program.

The child study team naturally has the primary responsibility for overall monitoring of student progress, but it receives significant input from the vocational and related instructors who are responsible for preparing the periodic progress reports. Student records are maintained by the special needs division guidance counselor. A typical student file includes a summer school evaluation report; progress charts for the vocational areas; student transfer form from employment orientation to regular shop; progress reports from the cluster shops, academic classes and regular vocational classes; academic profile forms, progress charts for academic classes; copies of special progress reports to the parents; employment orientation teachers recommendation for transfer to regular shop; and a transcript. The guidance counselor and child study team monitor progress on an almost continuous basis. They are made aware of problems through referrals for service.

A number of other mechanicisms have also been established to monitor program activities and to facilitate information exchange among the special needs staff. They include:

- A twice-monthly report from the child study team to the director describing activities and accomplishments.

- A weekly report from each of the mobile trailer units to the director describing their activities. This is an important report since the units are generally stationed away from the Gloucester campus. The director also makes two visits per month to the units while they are at a school site.

- A weekly child study team meeting (staffing) to review student evaluations and discuss educational prescriptions.

- A weekly luncheon meeting of the special needs supportive staff to exchange information concerning students and coordinate activities.

- A meeting of the special needs faculty and supportive staff every six weeks to review the program and coordinate activities.

- Meetings between the child study team and regular vocational instructors at the end of each marking period to review the progress of every special needs student enrolled in the class.

Placing the Student

Placement into competitive employment is primarily the job of the Cooperative Industrial Education (CIE) coordinator. As with the sections of the EOP discussed previously, placement is normally a gradual process dependent on the student's in-school progress and readiness for outside employment. The CIE program provides both placement and on-the-job training. There is no rigid requirement as to how long the student must remain in school before graduation and before obtaining employment. His job readiness is measured by his demonstrated competence in performing the skill clusters for each occupational area. The CIE coordinator begins to review all students when they reach the age of 16. Recommendations as to the readiness of the student for employment are provided by the teachers and the child study team. In any case, however, the coordinator begins looking for placement possibilities for any student who reaches the age of 18 although placement may not be immediate. A student is usually placed in CIE for work experience as he approaches graduation or when it appears that his peak abilities in the vocational classroom have been reached.

The CIE program has two sections, one for students from the regular vocational division and one for students from EOP. The regular students must have a B or better grade average and participate only during the last half of their senior year. The EOP students can participate at any time during the tenth through twelfth grades and have no grade average requirements. The program is designed for students who require personal guidance, placement and follow-up under school supervision while being employed. Students must be at least 16 years of age, at least a sophomore, be paid at least the minimum state wage, be covered by Workman's Compensation, alternate weekly between school and work or spend one-half day in each, be supervised on the job by the coordinator and sign an agreement form with the employer.

The CIE work experience placement often evolves into the job in which the student remains after graduation. A recent EOP graduate who attended the regular design tailoring shop for two years was placed in CIE for the last half of the senior year and continued with that employer following graduation.

The majority (about 80%) of students have some work experience on campus or participate as volunteers before they enter competitive employment (the CIE program is considered competitive employment). All EOP work experience programs are developed and coordinated by the CIE coordinator and the work-study coordinator. The CIE coordinator: performs job surveys; arranges job interviews, guest speakers, and field trips; places students; does follow-ups; provides car transportation to interviews and jobs; and provides job counseling.

Follow-Up

Follow-up is done annually for all graduated students via a mailed questionnaire. Recent examples of successful placements include placement of three special needs students in Medford Knitting Mills in the design tailoring shop. One month of intensive training on specialized machines for the knitting industry was provided before placement. To help with the adjustment, the shop teacher went to the job with the students. A special needs student also obtained employment with the Navy as a technical draftsman. The student was recommended by the special needs program to a Navy recruiter who visited the campus.

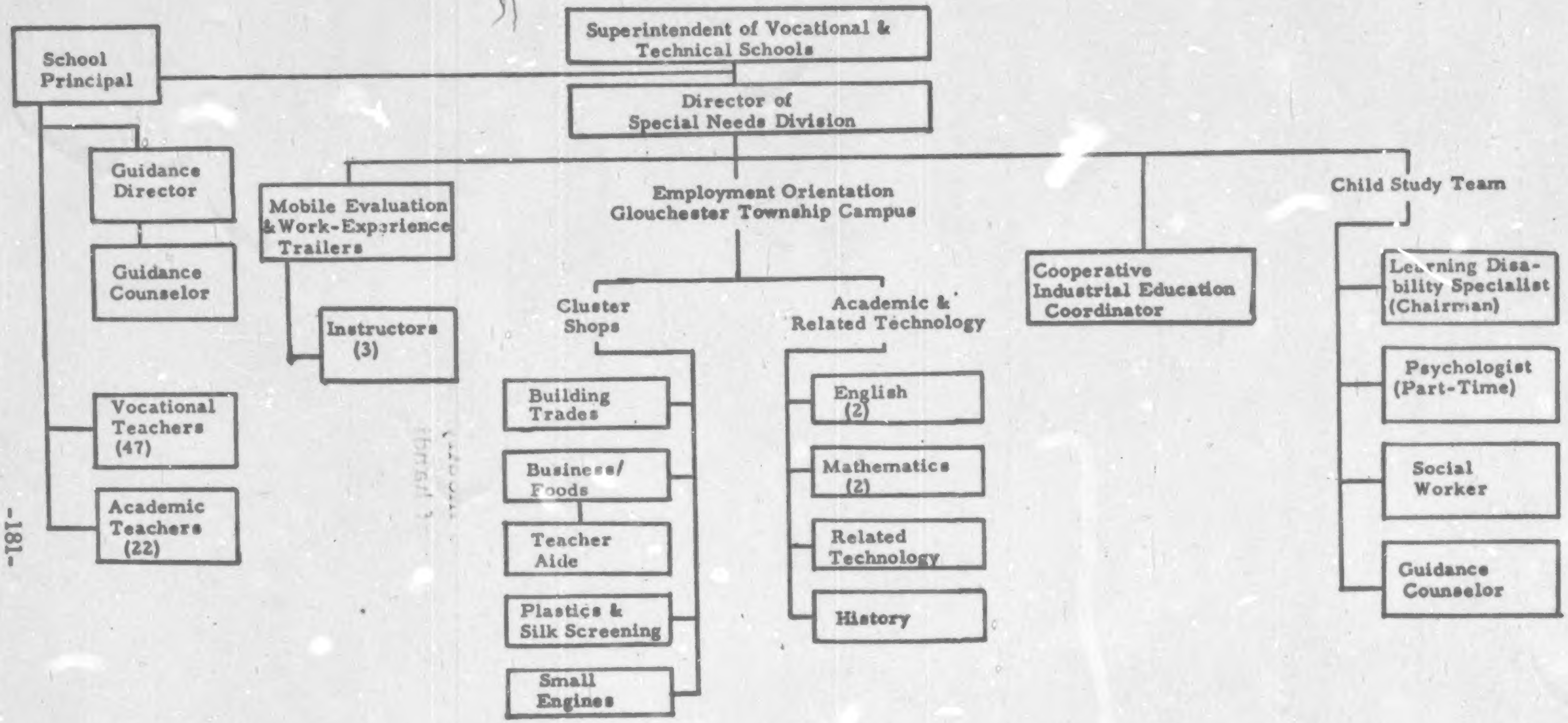
As part of the normal follow-up procedure, the CIE coordinator will often visit recent graduates on the job to ensure that no problems have arisen. Graduates are also able to attend the evening adult courses at the school if there is a need for remedial work, or, if the student would like additional training beyond what is provided at his job.

Managing the Program

The director of the special needs division reports directly to the Superintendent of Camden County Vocational & Technical Schools even though the program is integrated and some of the handicapped students attend vocational classes with regular students. This arrangement gives the director and high school principal equal organizational status. It also allows the program the freedom to modify rules, regulations and operating guidelines to fit the special needs of handicapped students. The strong support of the superintendent is a critical element in the success of this program. Exhibit 15 provides an organization chart for the special needs division.

Exhibit 15

CAMDEN COUNTY VOCATIONAL & TECHNICAL SCHOOLS ORGANIZATION CHART


Superintendent of Vocational & Technical Schools
Director of Special Needs Division
School Principal
Guidance Director
Guidance Counselor
Vocational Teachers (47)
Academic Teachers (22)
Mobile Evaluation & Work-Experience Trailers
Instructors (3)
Employment Orientation Gloucester Township Campus
Cluster Shops
Building Trades
Business/ Foods
Teacher Aide
Plastics & Silk Screening
Small Engines
Academic & Related Technology
English (2)
Mathematics (2)
Related Technology
History
Cooperative Industrial Education Coordinator
Child Study Team
Learning Disability Specialist (Chairman)
Psychologist (Part-Time)
Social Worker
Guidance Counselor

The personnel of the special needs division consists of the director, six vocational instructors, six academic teachers (two English, two mathematics, one history, one related technology), the child study team (learning disabilities specialist, social worker, school psychologist, and guidance counselor), and the CIE coordinator. Exhibit 16 provides a brief description of the personnel.

All staff members meet once every six weeks to review the program and coordinate their activities. In-service training in how to teach special needs students is provided to regular vocational education teachers. A federal grant was obtained under the Educational Profession Development Act to provide three seminars in special needs vocational-technical education. This type of assistance is critical in gaining the cooperation of regular vocational instructors in integrating handicapped students. This integrative process is best accomplished on a slow gradual basis.

On-going classes in special needs teaching are also held one day por week (for two hours) on the Gloucester campus. These classes are taught by Glassboro staff and EOP teachers receive college credit for the classes.

The director's role is primarily one of program development. His staff is primarily responsible for the day-to-day operation of EOP. The director prepares the budget annually and submits it to the Superintendent's office. Exhibit 17 shows budgets and funding sources from 1970 to 1974. The per student cost has declined from $3,100 per year to $1,600 per year as the program has developed and the number of special needs students has increased. In addition, the early years included some start-up costs that were non-recurring.

The director also makes a minimum of two formal observations of each teacher's classroom work each year as well as numerous informal ones. There could be as many as three formal observations if a teacher were having problems. Letters are sent to the teachers who need to improve their performance. Mid-year composite reports are submitted to the superintendent's office concerning all staff members in the division.

The program is re-evaluated every year by the director. He reports his recommendations to the superintendent in an annual report. The basic measures used are dropout rate (3% in the January 1973 Report), percentage integration into the regular shops (50%), work experience placement

Exhibit 16

SPECIAL NEEDS PROGRAM PERSONNEL

Position			
Director	1	Administer program; direct all Special Needs staff	M.A. in Administration of SE Previously on State Department of Education staff Four years with program (since inception)
Vocational Teachers	6	Teach in Cluster Shops	Three have B.A. in Industrial Education All have work experience in their teaching area
Academic Teachers	6	Teach English, mathematics, history & related technology to Special Needs students	Five have B.A. in field of instruction or Special Education All are state certified
Learning Disabilities Specialist	1	Chairman of Child Study Team Diagnosis of learning difficulties, assistance to teachers, consultation	B.A. & M.A. in Special Education Certified as a Learning Disabilities Teacher Consultant
Social Worker	1	Member of Child Study Team Case work with students & parents, community liaisons	B.A. & M.A. in Social Work Third year with program
School Psychologist	1	Psychological testing & diagnosis	B.A. & M.A. in Educational Psychology certified as a School Psychologist
Guidance Counselor	1	Counseling for Special Needs students	B.A. in teaching M.A. in Counseling Second year with program Previously taught elementary school for five years
Cooperative Industrial Education Coordinator	1	Work-experience placement for Special Needs students	B.A. in Industrial Education M.A. in Public Relations Third year in program Nine years of Teaching experience

Exhibit 17

PROGRAM BUDGETS & FUNDING SERVICES, 1970-1974
SPECIAL NEEDS DIVISION

	1970-71	1971-72	1972-73	1973-74
Salaries	$ 64,504	$ 147,097	$ 202,310	$ 213,674
Travel	2,106	2,011	2,100	4,530
Supplies	13,761	16,548	17,892	30,723
Equipment	67,725	11,735	-	26,056
Operations	15,371	10,851	16,967	-
Miscellaneous	3,000	3,824	5,300	27,538
TOTAL	$166,467	$192,066	$ 244,569	$ 302,521
Federal Funds				
Vocational Educational Act(VEA)	$100,936	$ 62,468	$ 57,692	$ 105,294
Title VI, Part B, Elementary and Secondary Education Act (ESEA)	11,456	6,000	33,800	-
	112,392	68,468	91,492	105,294
State	27,038	61,799	76,539	98,613
County	27,037	61,799	76,538	98,614
TOTAL	$ 166,467	$ 192,066	$ 244,569	$ 302,521

records and successful job placements. With introduction of the unitized curriculum, a measure of the appropriateness of the level of job reached by a graduate will also be available. The level of training (as identified by job title) received in the EOP will be compared with the level of employment reached.

The comprehensiveness and the continuing desire to improve the program are keys to EOP evolution into one of the most effective occupational programs for the handicapped in the country. The gradual introduction of students to higher skill levels and to increasing degrees of integration with non-handicapped students is supported by a continuing process of evaluation and counseling by the child study team. The addition of the mobile units as exploratory and evaluative devices for prospective students, and the addition of the CIE coordinator for the prospective graduates make the EOP a comprehensive and effective program for the low-incidence students it serves.

AUX CHANDELLES VOCATIONAL TRAINING DEPARTMENT
ELKHART COUNTY ASSOCIATION FOR THE RETARDED
ELKHART, INDIANA

The Aux Chandelles Vocational Training Department (VTD) is a vocational training and placement program for mentally retarded persons ages 18-21 which serves the seven school districts in Elkhart County, Indiana. Its stated goal is to "place mentally retarded adults in vocations" in the Elkhart area. It is operated by the Elkhart County Association for the Retarded (ECAR) and is one of many services to the handicapped provided by that private organization. Trainees usually enter VTD after attending special education pre-vocational classes in the Joint School Development Center, a centralized public school facility. VTD is an integral part of a county-wide sequential developmental program for the mentally retarded which is accomplished through a combination of pre-vocational and vocational training provided by the public schools and ECAR.

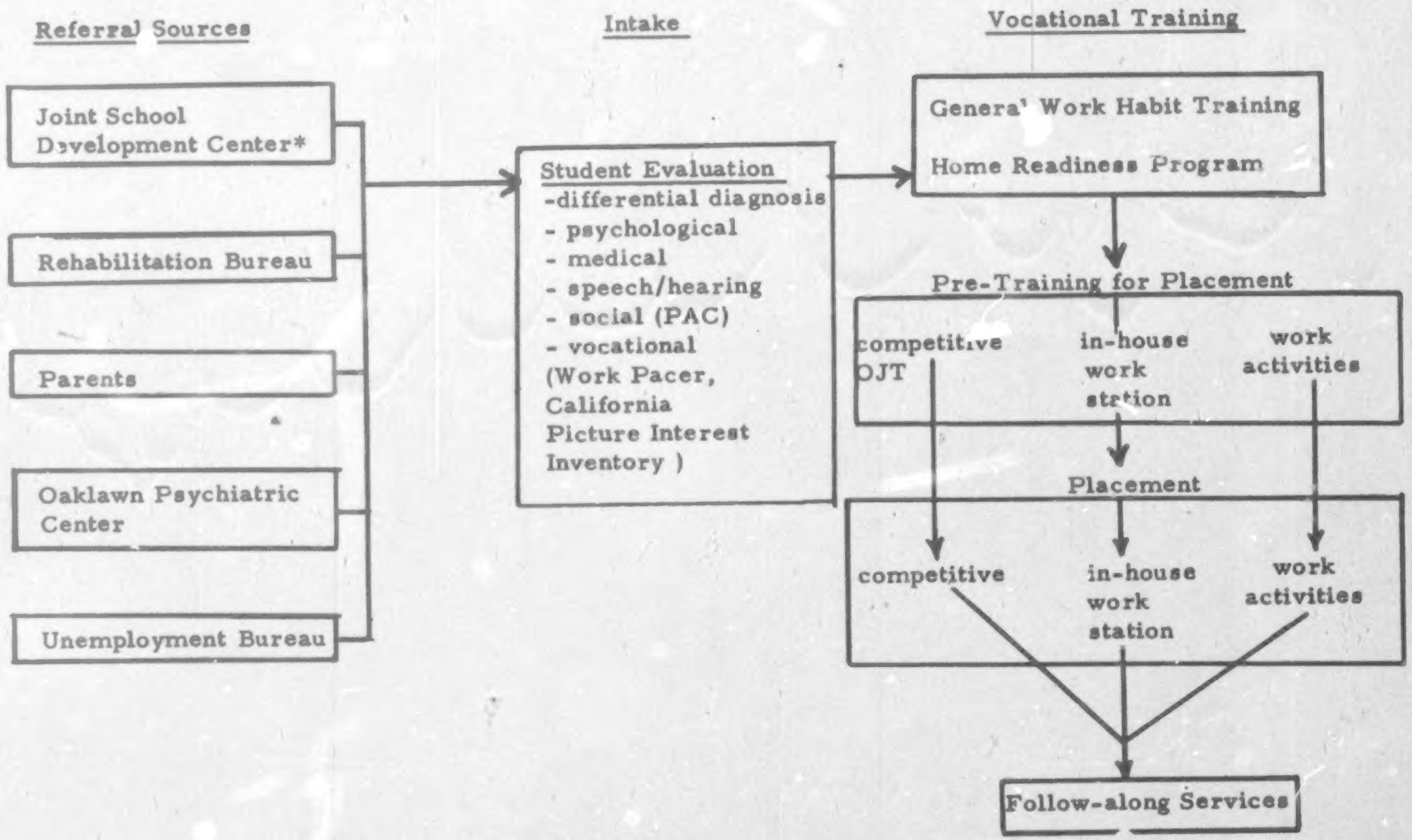
The students served are trainable mentally retarded, severely mentally retarded and lower range educable mentally retarded with additional emotional problems. There are currently 18 trainees in VTD in two classes of nine each. Since its beginning in October 1970, the program has trained 69 trainees, all but two of whom have been placed in some level of employment from competitive to sheltered placements. The program is funded primarily from local and state sources (96%) and had an operating budget of $68,533 for 1973 or an average of $1,627 per student.

The total program is shown in Exhibit 18. Referrals for potential trainees are received from the public school system, vocational rehabilitation, other community agencies and parents. Applicants are given psychological, speech and hearing and vocational evaluation tests using the work pacer (a machine which provides a reliable indicator of productive capacity) and the California Picture Interest Inventory. Applicants are also referred to medical agencies for physical, vision, and dental examinations. The referral intake process generally takes about two weeks.

Once in the program, an individualized training program is developed for each trainee based on test results and observation by the staff. The program is oriented toward a level of employment commensurate with the trainee's ability. The trainee receives general work habit training

Exhibit 18

AUX CHANDELLES VTD STUDENT FLOWCHAR



* Over 90% of the trainees entering VTD come from the joint school pre-voc program.

based on the Individual Program Plan (IPP) which states the long-term and short-term objectives as well as the specific activities to reach the objectives for each trainee, and the Progress Assessment Chart (PAC). As the trainee achieves the initial objectives established, he progresses to pre-training for placement. Placement is possible at three levels: competitive, in-house work station, and skills improvement (work activity).

The approach to placement is a simple, straightforward one, stressing the strengths of the handicapped and recommending that compensation should be proportional to productive capacity. Potential employers are identified through the yellow pages and the local industrial director and approached by the director, often with a resource person from the community to provide an introduction. Open and frank discussion of the handicapped client's potential follows. The follow-along services range from an intensive involvement by the vocational teacher during the first three months to periodic visits by the director. VTD placement effort with the trainees has been effective, achieving an 83% success rate of those placed.

Setting Up the Program

The start-up history of Aux Chandelles VTD illustrates the excellent use of local community resources and the cooperation possible between private agencies and public schools. Although Aux Chandelles was started by ECAR, it was not intended that the organization should continue to run the program. It was and is a stated policy objective of ECAR to turn over programs as soon as feasible to public school governance. ECAR operates on a "turn-key" principle, providing services where needed and seeking public recognition of the need for services and the eventual assumption of responsibility by a public agency. Two other features characterize the start-up situation of Aux Chandelles. First, the program serves the entire country, which includes seven local school districts. Second, no funds from the 1968 Vocational Education Amendments were sought or received. Although some federal monies were used for start-up salaries in 1970, they were not used as a major source of funds. Instead, local public, private and state funds were used for developing an on-going operation.

ECAR began in 1952 as a private parent group to provide services to mentally retarded children who were not being served by the public schools. Classes were held in a union hall, two basements and an old house. ECAR continued in this manner, providing basic educational services to a wide range of retarded persons, until 1966. At that time, through a United Fund building drive which was begun in 1965, a new facility was built. The development center building, completed in the fall of 1966, cost $400,000 including equipment and furnishings. The center was used for trainable and educable mentally retarded classes run by ECAR for school-age children. Funding was provided as follows:

United Fund Building Drive	$321,000	80%
Elkhart County Funds	53,000	13%
Private Contributions	26,000	7%
	$400,000	100%

Since 1966, ECAR and the public schools in Elkhart County have cooperated to provide comprehensive educational services for the retarded with the public schools assuming progressively wider responsibility for education of the retarded. Highlights of this relationship have been:

1967: ECAR assisted school districts in Elkhart County in planning educable mentally retarded classes.

1968: Public schools assumed responsibility for educable mentally retarded students in ECAR classes. Trainable mentally retarded students (6-18 years old) remained with ECAR.

1969: School districts began serving school-age trainable mentally retarded students.

1970: School districts completed assumption of responsibility for school-age trainable mentally retarded students by contracting with ECAR for continuation of services to trainable mentally retarded students.

1971: School districts developed three-year plan to serve pre-primary retardates and 6-18 year old severely mentally retarded students. Plans to purchase the development center building from ECAR by 1973 were approved by the school districts.

In 1970, ECAR developed the vocational training program for the 18-21-year-old mentally retarded group. A vocational training wing was added to the development center. It was funded as follows:

State Funds	$ 77,000	66%
County Funds	25,000	21%
Private Contributions	15,000	13%
Total Cost	$117,000	100%

The program opened in October 1970 with eight students and was staffed by the director and one aide. It soon became evident that two problems would have to be solved before an effective program could be fully developed. The first was transportation for the trainees. VTD served trainees from all of Elkhart County so a bus system was established to transport trainees to Elkhart where VTD is located.

A second problem encountered was the set of school norms, expectations and entering behaviors of the trainees. Trainees were accustomed not only to the public school schedule but also to the norms and expectations of their former school-age peer groups. The director found it difficult to get students to accept adult vocational expectations of performance or behavioral norms. He found a discernible correlation between a trainee's ability to accept adult performance norms and the probability of working in the two upper placement levels -- competitive and in-house work stations. The ability to accept adult expectations also seems to have been related to the overall home environment a good supportive home situation being beneficial to the trainee. VTD has addressed this problem through encouragement of the formation of new adult peer groups once the client is in VTD, closer consultation with parents using a "training agreement" and closer supervision of VTD trainees in other parts of the center building.

In 1973, in accordance with its "turn-key" principle, ECAR proposed to the school districts that they take over the operation of the Vocational Training Department and make it a part of the Joint Schools Development Center (JSDC) beginning in 1974. To make the transition with no additional financial burden on the districts, ECAR offered to pay any costs not reimbursed by the state through special education, vocational education or vocational rehabilitation monies for one year. The Board of Superintendents of the JSDC did not accept the proposal, citing problems with future funding requirements and offering services for students over the legal requirement age of 18. There are no plans to re-submit the proposal until there is a change in public school policy. Exhibit 19 shows the current relationship between ECAR and the public schools.

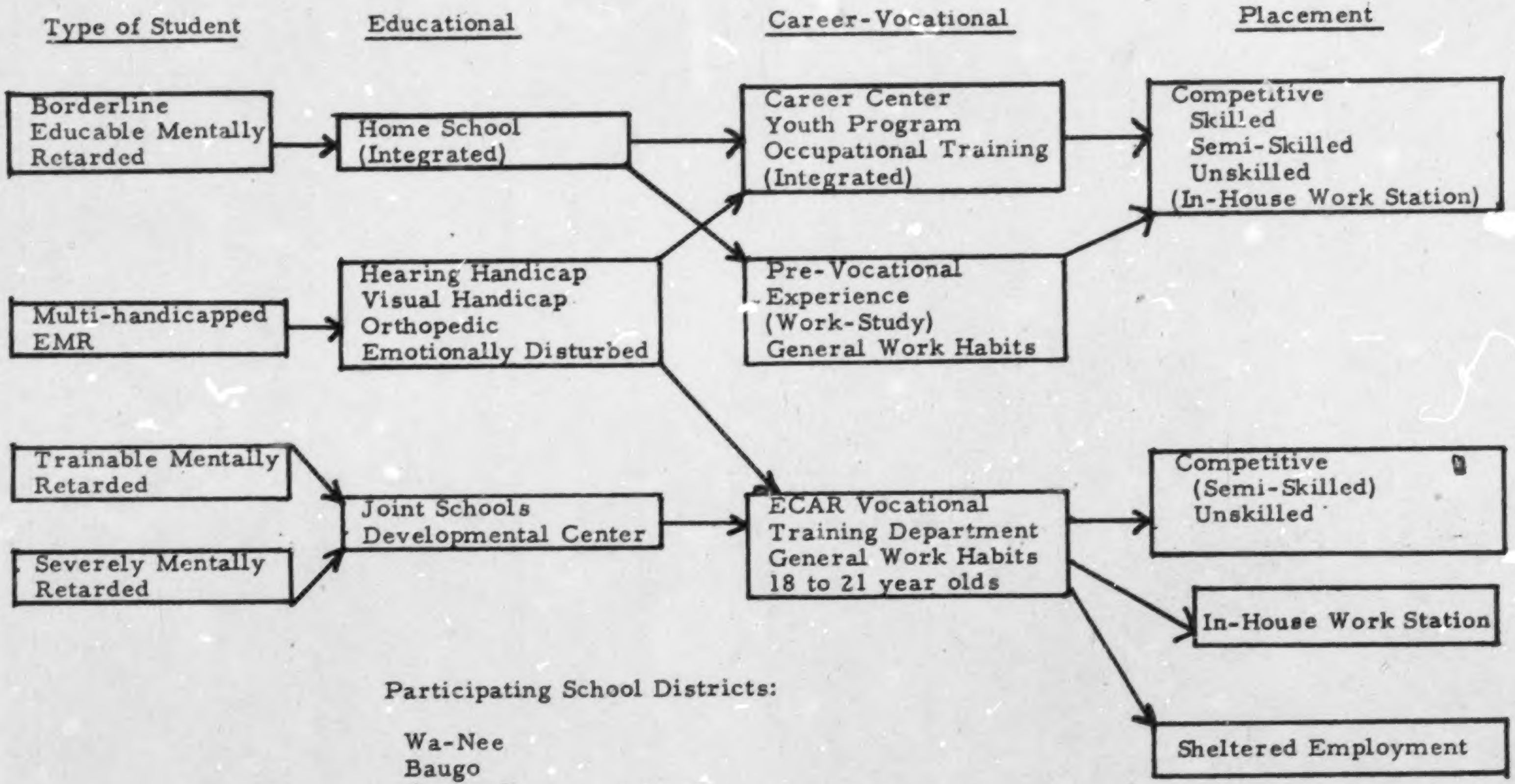
The demographics of the Elkhart County area seem to be reflected in the 69 persons trained thus far. The county is approximately 10% black, mostly blue-collar workers and about 12% of the trainees in VTD have been black. There is a significant white blue-collar population as a result of migration starting about 1966 of many families from the South seeking work in the recreational vehicle industry centered around Elkhart. Further, the incidence of trainable and severely mentally retarded persons -- which is close to 1% -- appears to be higher in Elkhart County than the national average of about 0.5% of the general population. This may result from a higher than average incidence of mental retardation in Elkhart County or it may reflect the effective identification and referral process developed by ECAR and the public agencies.

The Oaklawn Psychiatric Center provides psychiatric evaluations for trainees referred by ECAR; approximately 8 trainees per year receive these services. Oaklawn also refers 5-6 potential trainees to VTD for enrollment. A team effort between VTD and Oaklawn personnel is used in working with trainees who need the services of both.

The Elkhart Rehabilitation Center serves primarily educable mentally retarded and multi-handicapped persons, providing them with general work habit training and occupational training. A close relationship with the VTD exists. Both exchange placement information and assist each other with job placement. VTD sends 4 to 5 referrals each year to the rehabilitation center for occupational therapy and physical therapy. Because the rehabilitation center serves as the local representative for vocational rehabilitation, funds are available to provide extra services needed to make a person employable. The skills improvement program (work activity) run by ECAR is supported by the rehabilitation center. There are two locations for this program -- one at the Joint School Development Center for 18-21 year old retardates (VTD) and one at the county home for older retardates. Exhibit 20 shows the relationship between ECAR and vocational rehabilitation.

Exhibit 19

PROGRAMS PROVIDED BY THE PUBLIC SCHOOLS IN ELKHART COUNTY


Type of Student
Educational
Career-Vocational
Placement
Borderline Educable Mentally Retarded
Home School (Integrated)
Career Center Youth Program Occupational Training (Integrated)
Competitive Skilled Semi-Skilled Unskilled (In-House Work Station)
Multi-handicapped EMR
Hearing Handicap Visual Handicap Orthopedic Emotionally Disturbed
Pre-Vocational Experience (Work-Study) General Work Habits
Trainable Mentally Retarded
Severely Mentally Retarded
Joint Schools Developmental Center
ECAR Vocational Training Department General Work Habits 18 to 21 year olds
Competitive (Semi-Skilled) Unskilled
In-House Work Station
Sheltered Employment

Participating School Districts:

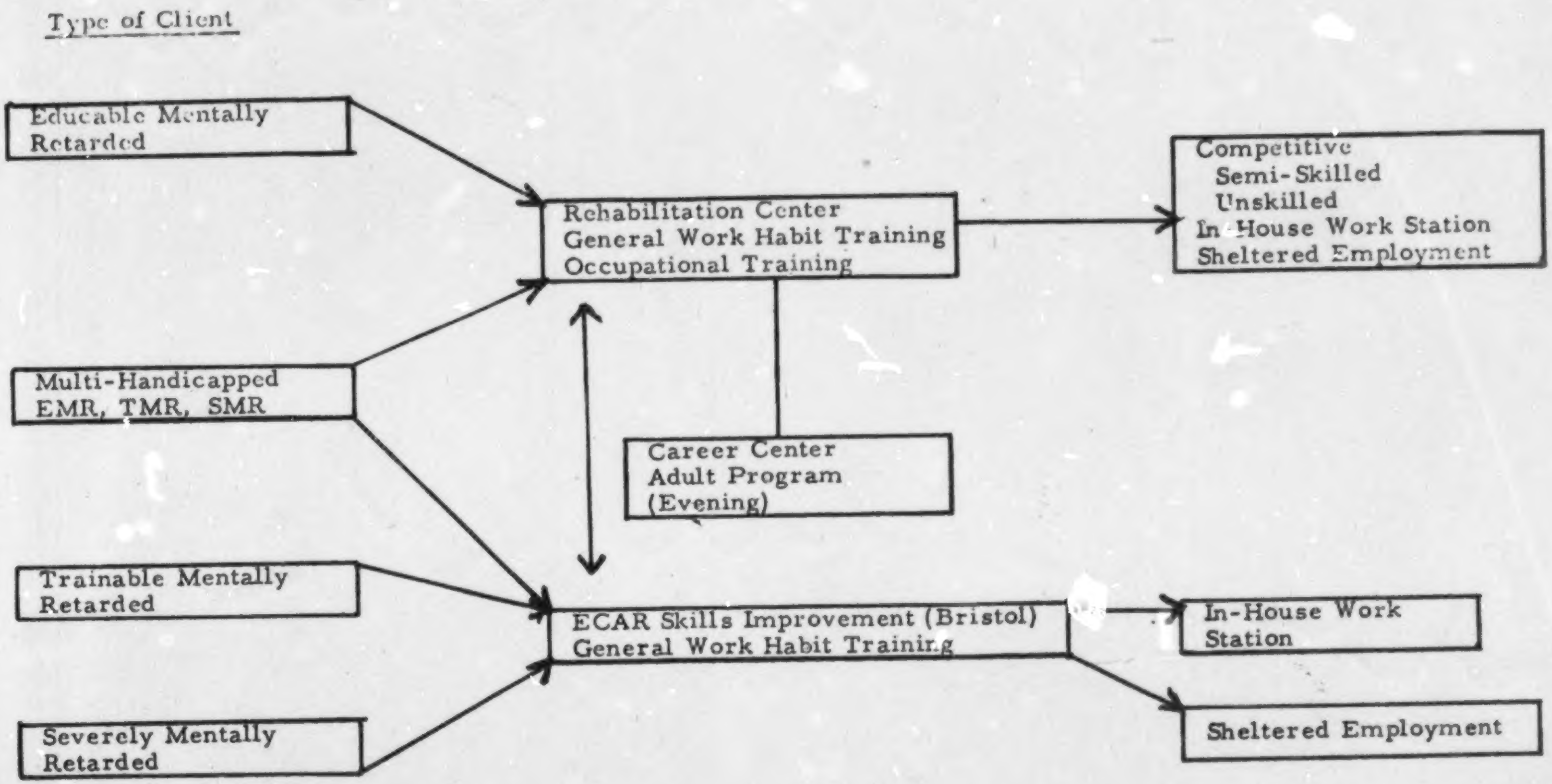
Wa-Nee
Baugo
Concord

Goshen
Fairfield
Middlebury

Elkhart

Exhibit 20

PROGRAMS PROVIDED BY VOCATIONAL REHABILITATION AND ECAR



Public welfare provides medical services for needy trainees that meet their eligibility criteria. Generally, about ten trainees per year receive assistance from this agency. They also cooperate with ECAR on residential placement of about 8-10 mentally retarded persons annually.

These cooperative relationships demonstrate the extent to which Aux Chandelles has become established in the community's system of services to the handicapped. There is active parent involvement in the VTD program. VTD teachers make weekly visits to the homes of the most severely handicapped. The home readiness component seeks to train and educate parents to develop and carry on the teacher's efforts each day with the trainee. The Individual Program Plan, the core of training in the VTD specifies the role and responsibilities of the parent in the training agreement and includes the parent in the group that evaluates the trainee.

Identifying Student Needs

Prospective trainees are referred to VTD from a variety of sources. Most come from the Joint School Development Center, but referrals or requests for admission are also received from parents who learn about the program and local public and private agencies concerned with mentally retarded young adults.

Following the initial referral, trainees are evaluated, using intake documentation (a traditional clinical approach). They are also given a vocational evaluation, using the work pacer and California Picture Interest Inventory test.

Students are accepted, provided the primary diagnosis is mental retardation. Student screening takes place during intake process which consists of differential diagnosis, psychological (psychiatric if needed), medical (optical, dental, and physical), speech and hearing evaluation, vocational evaluation, nursing summary and social assessment. The social assessment is accomplished with the use of the Progress Assessment Chart of Social Development developed by H. C. Gunzburg. The psychological and medical examinations are provided by other agencies or purchased from private sources. Speech and hearing evaluations are purchased from a private clinic. Most of the information and test data gained during screening is transmitted through the forms listed below:

Completed By	Type of Form
Parent	Comprehensive admission application
Family or consulting dentist	Dental history
Family or consulting physician	Physical examination
Private doctor or public welfare doctor	Vision testing

Parents and the applicant are responsible for physical, vision and dental exams. VTD provides psychological testing, speech and hearing evaluation and vocational evaluation. A social history is written by the social worker from the ECAR counseling department and a registered nurse provides a written medical history. The entire process usually takes about two weeks. A decision is made by the director at the end of that period and the parents are informed of it. Applicants not accepted by VTD are usually referred to some other ECAR or publicly administered agency. An applicant may be referred to the Elkhart Rehabilitation Center or the Vocational Technical Training Center. VTD usually accepts every applicant as long as he or she can benefit in some way from the program's services.

After the admission process is completed, the VTD director established a "tracking" system for the trainee based on the test and clinical data and preliminary observation. The tracking approach is integral to VTD's goal of placing the mentally retarded adult on some level of employment. At VTD, tracking means establishing a realistic assessment of the trainee's potential and writing and implementing the prescriptive Individual Program Plan to work with that potential in order to make the trainee employable at some level.

The vocational evaluation is accomplished using a combination of the work pacer and the California Picture Interest Inventory test. The work pacer is a machine developed by the director of VTD for measuring the potential productive capacity of trainees. The machine tests the trainee's dexterity, stamina, and productive abilities over a series of three common manufacturing tasks. The director of VTD describes the work pacer as follows: "The work pacer is a device which sets the minimum and maximum parameters relative to the trainee's motor development and therefore productivity. Physically, the work pacer is 7 feet long, 3 feet wide and 3 feet high with two work areas 3 feet wide by $2\frac{1}{2}$ feet long. The unit is powered by an electric motor with a gear reducer which rotates a turntable. The circular motion is redirected to an oscillatory movement by cables connected to tracked arms which move over the work area at a two-inch clearance. The speed is controlled by a variable speed-setter (electrical rheostat). The work task trays can be exhanged by removing the tray and inserting another tray. Presently, there are three tasks consisting of a simple two-step sequence, a concept formation task with 11-step sequencing, and a non-sequential fine motor task. The trainee is asked to perform a total of six tasks. Each of the three tasks has two components, a self-paced score and a machine-paced score. The six scores are totalled and compared with norms, thereby allowing us to draw inferences as to the minimum and maximum productivity of the trainee. The limited norms are based on scores obtained from the industrial workers."

Production records kept by VTD for six trainees show that their actual on-the-job performance was within ± 5% of the work pacer predictions. The vocational evaluation has two major purposes: it forms the basis for program planning and goal setting for the trainees and it allows the director to provide the potential employer with a reliable indication of the percentage of normal productive capacity to expect from the trainee. A sample from an individual vocational evaluation is shown in Exhibit 21.

The trainees placed by VTD or still in the program have been diagnosed as follows:

	Trainees	Percent
Borderline educable mentally retarded	2	3%
Educable mentally retarded	19	28%
Trainable mentally retarded	38	55%
Severely mentally retarded	10	14%
Total	69	100%

Status	Mean WISC IQ
Home Readiness	Not available
Training Program	
Group 1	51
Group 2	63
Competitive Employment	62
In-House Work Station	53
Work Activity Program	44

Exhibit 21

VOCATIONAL EVALUATION

Name: Ben
Age: 19
Date: September 14, 1972

Results of Samples on the Work Pacer:

	Stationary:	Machine Pace	Errors
Placement of Pegs	38%	48%	below 5%
Clamp assembly	34%	53%	below 5%
Sampling procedure		83%	17.5% Invalid
Average	36%	50.5%	

Difference = 14.5%

Summary of Work Samples:

The pattern outlined above denotes that Ben has a definite lack of efficient work techniques. His productive output was about 50%, however, when he worked at a faster pace, the quality factor was low. Rhythm of work was adequate but the pace was below average. His use of systematic procedures was adequate on simpler tasks but became inconsistent on more difficult tasks. Fine finger dexterity and eye-hand coordination were adequate. The tolerance for distraction is very good.

Results of California Picture Interest Inventory:

Interpersonal relationships = 95th percentile
Natural = 30th percentile
Mechanic = 10th percentile
Business = 90th percentile
Aesthetic = 30th percentile
Science = 5th percentile

Supplemental Scales:

Verbal = 60th percentile
Computational = 90th percentile
Time perspective = 40th percentile

Summary of Interest Inventory:

Comparing the scores of interpersonal relationship and verbal communication one could draw an inference that Ben's social adaptiveness in an industrial setting would be good. The high percentile in business indicates that Ben would be interested in learning the total system of a product's use. The low score on the aesthetic may present a problem when translated to quality factors. Quality was a factor on one of the five work samples. The time perspective score is an indicator of awareness concerning the correlation between choices and the understanding of the length of time it will take to be competent for that job family. Ben's percentile score of 40 is adequate but not strong.

Trainees in the home readiness group are severely or profoundly handicapped and may have a secondary physical handicap. Trainees in the competitive employment group have been primarily educable mentally retarded (75%) or adaptable trainable mentally retarded (those who test as trainable mentally retarded but function at a higher level). The in-house work station group are trainable and educable mentally retarded students with emotional stability problems. The work activity group is composed of severely and profoundly mentally retarded (50%) and less adaptive trainable mentally retarded (50%).

Meeting Student Needs

The Joint School Development Center from which most VTD students come functions as the major pre-vocational component. After entering VTD, the trainee is given vocational training, starting with general work habit training. There is also a parallel home readiness program in this phase for the severely or profoundly mentally retarded or the physically handicapped. The Individual Program Plan and the Progress Assessment Chart are used to plan the student's training program and for continued social skills evaluation.

The trainee next enters the pre-placement training phase at one of three levels: competitive job training, in-house work station training, and skills improvement training (or work activity). Placement is usually made at the same level as the pre-training experience. Follow-along services are the responsibility of the case manager (vocational teacher) with short-term job visits and long-term follow-along by the director. Trainees who lose their jobs may return to VTD for further training.

The primary goal is "...to place mentally retarded adults in vocations in the County of Elkhart, Indiana." Specific objectives sought are:

- To provide all 18-21-year-old mentally retarded persons in Elkhart County with vocational training appropriate to their abilities.

- To identify the potential placement level of each trainee and to program each one into the appropriate training component to reach that level.

- To provide a sufficiently broad range of job opportunities to allow each one into the appropriate training component to reach that level.

- To provide a sufficiently broad range of job opportunities to allow each trainee to find a placement commensurate with his abilities.

- To provide continuing education and support to employed trainees after they leave the program.

- To provide follow-along services to the trainee and employer to improve the chances of successful placement.

The VTD area within JSDC is subdivided into four sections: classroom; work activity (skills improvement program sheltered workshop); VTD shop area; and the office. Only the office is sealed off from the other areas with walls that reach the ceiling. The other areas are divided by shelves, or dividers so that they are visually separated, but sound carries readily from one unit to another. The work activity area has work benches and small fixtures related to the workshop's current projects. The shop area for the VTD program has work benches, lumber storage, general storage, sewing machines, and a pillow-stuffing room (formerly a paint booth).

VTD has no formal internal pre-vocational program. Its location within JSDC, however, facilitates rapid consultation and observation of students destined for VTD. Both organizations use the Progress Assessment Chart for pupil assessment and progress evaluation. When they graduate to VTD, the Progress Assessment Chart continues to be used and aids VTD teachers in developing an effective Individual Program Plan. The training approach in the pre-vocational JSDC classes is built around the Progress Assessment Chart evaluation system and the use of programmed instruction in the five developmental areas: Motor-Physical; Affective; Communication; Social Self-Help; and Cognitive. Long- and short-term goals are established and the individual planning sheets show the steps and methods to be used in the classroom instruction. The sheets are color-coded for ease of reference.

The case of John, a 17-year old pre-vocational trainable mentally retarded student, is an example of using the Progress

Assessment Chart and programmed instruction sheets at the pre-vocational level of the JSDC. John's Progress Assessment Chart showed that he is still deficient in some areas of self-help, communication, socialization and occupational skills. His greatest deficiency is in communication. The Progress Assessment Chart showed that he mastered two new skills in the school year:

PAC Skill No.	Description
105	Talks on telephone -- able to speak clearly, understands other persons, and answers questions sensibly.
106	Relates an experience involving 3 to 4 components in the correct sequence.

John's programming sheet for the communication area showed how this evaluation was translated into actual classroom instruction plans:

Long-Term Objective:	Learn functional public signs reading and basic telephone and public information skills.
Short-Term Objective:	Recognition of 10 basic signs
Steps:	Learn three words at a time
Method:	Use of sign cards, flash cards, actual signs in building, mock telephone.

The major difference between pre-vocational JSDC classes and VTD is the vocational orientation and the requirement for trainees to live up to adult expectations.

The VTD is built around general work habit training and pre-placement training. The home readiness program is for home-bound severely mentally retarded or physically handicapped persons. General work habit training will vary with trainee's specific needs but normally includes the following subject areas:

Self-Concept: Becoming more independent, making more decisions, being considered an adult and body image.

Work Habits: General work habits necessary for any job and manual dexterity.

Social Interaction: Expressing feelings in an acceptable manner.

Academic: Recognizing letters, names, numbers and telling time.

Self-Care: Health and hygiene.

Leisure Time: Recreation and hobbies.

The working curriculum document of the program is the Individual Program Plan mentioned earlier. The complete package includes:

Cover sheet showing contents and the personnel involved in the evaluation team (Exhibit 22).

Services Needed/Provided record for monthly review by the Director (Exhibit 23).

Individual Program Planning Sheets for motor, affective, communication, social self-help, and cognitive areas (Exhibit 24 shows an example "affective" planning sheet).

Training Agreement (Exhibit 25).

A monthly review of services is made by the teacher and director. He or she reviews the "services needed" and the "services provided" and takes appropriate action if there are significant differences between the two. Five developmental area forms are completed by the teacher. They show what steps and methods have been undertaken toward accomplishment of the specified short-term goal and when those steps were initiated and completed. Each month, the teacher evaluates all the trainee's short-term objectives in the five developmental areas to determine if the objectives are still realistic, if those suggested are working and if the activities are properly sequenced.

Exhibit 22

INDIVIDUAL PROGRAM PLAN

Name

Age

CONTENTS:

1. Monthly Review of Services
2. Development Objectives
   - (a) Motor
   - (b) Affective
   - (c) Communication
   - (d) Social
   - (e) Cognitive
3. Monthly Evaluation of Objectives
4. Training Agreement

EVALUATIVE TEAM:

Parent/Guardian

Teacher/Trainer

Physician

Other Medical Specialists

Psychologist

Psychometrist

Speech & Language

Nurse

Social Worker

Psychiatrist

Date

Case Manager

Exhibit 23

MONTHLY REVIEW OF SERVICES FOR ______________ 1973

Name ________________________________ Social Security # ____________

SERVICES NEEDED:

1. ___ Evaluation
2. ___ Diagnostic
3. ___ Transportation
4. ___ Residential
5. ___ Nursing
6. ___ Medical
7. ___ Chemotherapy
8. ___ Occup. therapy
9. ___ Physical therapy
10. ___ Speech-lang. therapy
11. ___ Psychiatric therapy
12. ___ Casework
13. ___ Dental therapy
14. ___ Psych. services
15. ___ Other treatment
16. ___ Pre-school
17. ___ Educ. school age
18. ___ Training
19. ___ Activity-child
20. ___ Activity-adult
21. ___ Sheltered employ.
22. ___ Recreation
23. ___ Client couns. indiv.
24. ___ Client couns. group
25. ___ Parent couns. indiv.
26. ___ Parent couns. group
27. ___ Protective
28. ___ Follow along
29. ___ Other

Specify "Other" Services: ____

____

SERVICES PROVIDED:

(1) ___ Evaluation
(2) ___ Diagnostic
(3) ___ Transportation
(4) ___ Residential
(5) ___ Nursing
(6) ___ Medical
(7) ___ Chemotherapy
(8) ___ Occup. therapy
(9) ___ Physical therapy
(10) ___ Speech-lang. therapy
(11) ___ Psychiatric therapy
(12) ___ Casework
(13) ___ Dental therapy
(14) ___ Psych. services
(15) ___ Other treatment
(16) ___ Pre-school
(17) ___ Educ. school age
(18) ___ Training
(19) ___ Activity-child
(20) ___ Activity-adult
(21) ___ Sheltered employ.
(22) ___ Recreation
(23) ___ Client couns. indiv.
(24) ___ Client couns. group
(25) ___ Parent couns. indiv.
(26) ___ Parent couns. group
(27) ___ Protective
(28) ___ Follow along
(29) ___ Other

Specify "Other" Services: ____

____

Extra-Agency Involvement in Services: ____________________________________

____

____

Explanation of Service Changes, Modifications, Etc.: ______________________

____

____

Case Manager ______________________________ Date ______________

Exhibit 24

Name Vocational Trainee Developmental Area AFFECTIVE

LONG TERM OBJECTIVE: (Initiated / /) Recognizing and communicating fantasies - ultimately controlling them.

(Completed / /)

SHORT TERM OBJECTIVE: (Initiated / /) Discussing daydreaming openly - ask pertinent and open-ended questions.

(Completed / /)

Initiated	Steps	Methods	Completed
	Talk about daydreaming - ask him to		
	write down some of his daydreams.	Free and open-ended discussions	
	Discuss reasons for daydreaming,	with him - more on basis of client	
	effects of daydreaming on job and	counseling.	
	production. Learning that it's okay		
	to be wrong. Getting him into	Stop work, discuss, write down what	
	reality as daydreams are occurring.	is happening now. Immediacy very	
		important.	

Teacher ____________________ Date ____________

Exhibit 25

TRAINING AGREEMENT

Name Paul Date October 29

Parents/Guardian Mr. & Mrs.

Teacher/Trainer

Role of Parent/Guardian in Developmental Objectives:

Practice saying his name and especially address: 4-7-1 Walnut Street

Coin recognition: penny nickel dime

Practice on shoe tying

Does he have any jobs or responsibilities in family business

Role of Teacher/Trainer in Developmental Objectives:

Practice writing name - saying name and address

Practice on shoe tying

Coin recognition

Being functional in grocery store - push cart, find items

Role of Others Involved in Delivery of Services:

Speech therapist - working on survival information and words

Parent-Teacher Conferences - Dates

Evaluative Staffings - most recent 10-17-73 next

Parent/Guardian

Teacher/Trainer

The training agreement specifies the roles of the parent, teacher, and support personnel in achieving the developmental objectives. Between one and four hours are generally required to complete an Individual Program Plan. This is initially done within two months of the trainee's entrance into VTD. It is reviewed monthly for appropriateness. Every six months a staff meeting is held at which time the goals and training agreement are reviewed.

The PAC provides a check of client progress in four areas of social development: self-help, communication, socialization, and occupation. There are four levels:

P (primary PAC) for the very young or profoundly retarded to 6 years.

PAC-1 for mentally retarded persons 6-16 years old.

PAC-1A for mentally retarded persons 15-20 years old.

PAC-2 for mentally retarded persons 10 years and older.

There is also an M/PAC-1 for the mongoloid (Down's syndrome) person.

The completion of the Progress Assessment Chart is the first step toward an individualized remedial program based on the diagnosis of specific weaknesses. Its assessment of underdeveloped abilities can be used as the beginning of an itemized teaching program.

In summary, the general work habit training phase at VTD seeks to achieve basic job readiness through individualized programming. Development of the client's self-concept, mastery of production techniques and practices and social awareness are the main areas of remediation.

The vocational pre-training phase is designed to specialize the trainee's instruction prior to job or work activity placement. It includes on-the-job training, work stations, and in-house "mock-up" jobs in the department.

The in-house work station is an intermediate placement between competitive placement and a sheltered workshop setting. It consists of a full-time supervisor for approximately eight trainees engaged in a maintenance contract with a large department store. The contract is actually held by a local contract maintenance firm that in turn employs the trainees and supervisor. The contract was won in competitive bidding with other maintenance firms. The in-house work station offers closer supervision, greater assistance and a longer start-up period for trainees than is possible in most competitive job situations. The results of the first in-house work station have proved so satisfactory for the trainees, the employer and the department store that a second in-house work station has been established at the local Sears store. The contract was won in competitive bidding. The store was recently named the cleanest Sears store in the region.

The skills improvement program is, in essence, a work activity operation. It is the third placement level for low functioning trainees completing the VTD. They are generally long-term placements and trainees who will not be placeable in a higher level within one year. Work activity trainees punch in with time cards and work approximately three hours. At the end of the morning work period, the production of each trainee is measured and recorded. The trainees are paid on a piece-work basis. The actual daily production is compared with a goal. If the goal is reached, then the trainee gets some type of positive reinforcement. They are paid by check every two weeks; funds for the production payments come from the Rehabilitation Center. Following lunch, the trainees spend one and one-half hours in the classroom area working on self-help and academic skills. Afternoons are occasionally used for leisure time activities -- bowling, field trips, and social activities. The production jobs worked on by the trainees are simple one-to-three-step operations that have been subcontracted by the Rehabilitation Center and furnished to the program -- door spring assembly (2 step); salvage/recycling; collating, labelling, and stamping envelopes; and light fixture assembly (3 step).

The vocational teachers also conduct the home readiness program. The program was started because there are severely mentally retarded adults kept at home who have had no previous school experience. They need some preparation to be able to adjust the VTD setting. The teacher visits the home once a week to work with the parents and the potential trainee. Much of the time is spent working with the parents to train them to continue training once the teacher leaves; the teacher also counsels them on reasonable expectations for their child's achievement. While with the trainee, the teacher works on gross and fine motor manipulation, building up repetition and self-care.

Support Services

As a part of ECAR, the VTD has access to the full range of services provided by the Association including counseling for trainees and parents, social services, evaluation and diagnosis, volunteer efforts, health and nursing services, speech and hearing services. Transportation is available for those trainees whose parents are unable to transport them.

Placing the Student

The director is responsible for job identification and employer relations.

Placement from the VTD takes place at the three levels mentioned previously:

> Competitive placement: when the trainee produces about 60% of normal productive capacity or above and is socially adaptable.
>
> In-house work station: when the trainee produces in the range of 40-60% of normal productive capacity and has short or long-term correctable maladaptive social behavior.
>
> Work activity placement: when the trainee produces below 35% of normal productive capacity and has maladaptive social behavior that may or may not be correctable.

At the competitive level, VTD has placed about 22 trainees, an average of one successful placement for each two placement attempts has been achieved. There is also a trend toward advancement of trainees from their initial positions. The inclusion of Indiana in the National Association for Retarded Children grant program for on-the-job training funds from the U.S. Department of Labor, Manpower Administration, has helped VTD considerably at the competitive level.

The in-house work station was originally defined as a job try-out where the trainee worked part-time for two or three weeks. In practice, the job try-outs have led to actual job placement. The VTD started the in-house work station in August 1972, with nine students working from 6:00 a.m. to 10:00 a.m. six days a week cleaning a local department store as part of a contract crew. Based on the success of the first work station, a second work station was opened, and there are now 12 trainees on the job.

VTD has an inter-agency agreement with the Rehabilitation Center in Elkhart to share expenses for the Skills Improvement Center located at the JSDC; this program was begun in November 1972. The trainees are not locked into the last two levels (work station and work activity). They may be re-evaluated and moved into a higher placement track, if appropriate. Trainees may also be moved down to a lower level if their job experience shows that this would be best for them.

Once a trainee has achieved most of the short-term goals in terms of productive output and emotional stability, he or she is ready to be considered for job placement. After two to three months in general work habit training, a vocational prognosis report is written suggesting a job family for the trainee. The next step pre-trains the trainee for the job family and then a job is sought.

The job search is accomplished by reviewing companies known in the area, an industrial directory, and the yellow pages. Once a list of leads has been compiled, the director contacts a resource person in the community who is familiar with and willing to assist the VTD.

Out of ten leads, generally, three potential job opportunities are uncovered. The director then visits the companies to describe the program and the individual trainee and to analyze the job opportunities. Sometimes a videotape of the VTD program is used to acquaint the company personnel director with VTD. Occasionally a videotape of the specific trainee in a VTD work situation is also shown the company. After the job has been secured for the trainee, the director then transfers responsibility for actual placement and short-term follow-up (three months) to the vocational teacher. The approach used by the director in trying to place the trainees is open and business-like. There is a frank discussion of the fact that the trainee is handicapped and of the trainee's abilities and limitations. Advantages to the employer are also stressed -- salary proportional to productive capacity, no theft problems, reliability.

Of the 79 trainees who have been served by VTD, 49 (62%) have been placed in a job situation, 20 (25%) are still in training and 10 (13%) have been terminated for various reasons.

Summary of Trainee Placement (December, 1973)

Placement		49
- Competitive	22	
- In-house Work Station	12	
- Skills Improvement	15	
Home Readiness		2
Vocational Training		18
Sub-Total		69
Terminations		10
- Deceased	2	
- Emotional Instability	5	
- Moved	1	
- Lack of Desire to Work	2	
Total		79

Of those placed in competitive employment, 64% have been classified as educable mentally retarded and 36% as trainable mentally retarded. The In-House Work station is staffed by trainable mentally retarded, trainees, and the Skills Improvement Program serves primarily variable and severely mentally retarded trainees.

Type of Placement by Severity of Handicap (December, 1973)

	Borderline	EMR	TMR	SMR	Total
Home Readiness	-	-	-	2	2
Vocational Training	2	3	10	3	18
Competitive Employment	-	14	8	-	22
In-House Work Station	-	1	11	-	12
Skills Improvement	-	1	9	5	15
Total	2	19	38	10	69

The VTD currently has 22 trainees on competitive placement ranging in length of employment from 6 months to more than 2 years. The placements are summarized below:

Competitive Employment

Type of Business	Number Placed
Mobile homes and suppliers - carpenter's helpers (1) - seamstress (2) - janitorial (3)	6
Manufacturing - assembly line workers (4) - inspector (1) - janitorial (1) - punch press operator (1)	7
Service Occupations - teacher's aide (1) - bus girl (1) - janitorial (4) - dish machine operator (2) - packager (1)	9
Total Competitive Placements	22

Age Ranges (December, 1973)

18-21 years	11
22-25 years	3
25 + years	8
	22

Length of Employment (December, 1973)*

6 months or less	3
one year	8
two years	9
more than two years	2
	22

---

*Program started in October 1970.

The placement records for the In-House Work Station and Skills Improvement programs are shown below:

In-House Work Station

Type of Business	Number Placed
All are janitorial positions at two department stores	12

Age Ranges (December, 1973)	
18-21 years	7
22-25 years	2
25 + years	3
	12

Skills Improvement Program

Type of Business	Number Placed
All are placed in the work activity run by the VTD	15

Age Ranges (December, 1973)	
18-21 years	4
22-25 years	7
25 + years	4
	15

Length of Employment (December, 1973)	
6 months or less	6
one year	2
two years	4
greater than two years	3
	15

An example of the placement procedure at work can be found in the case of John, a 19-year old retardate who graduated from the program in June 1970. John's vocational prognosis report identified his strengths (perseverance, physical strength, gross motor tasks, normal hearing and vision) as well as his weaknesses (clumsy, awkward, some speech difficulties, retardation). The psychometric data obtained from the Peabody Picture Vocabulary Test, Vineland Social Maturity Scale and the Weshcler Intelligence Scale for Children also were analyzed for his strengths and difficulties. The results of the California Picture Interest Inventory indicated two areas in which John scored high, Interpersonal relationships (80 percentile) and Time Perspective (60 percentile). "A score in the 30th percentile in Time Perspective is considered adequate for the retarded and denotes a consistency of choice conducive to pre-training and on-the-job training." These findings were integrated into the Individual Program Plan developed for John by the vocational teacher. The suggested job possibilities were identified as "an area where he would be using his physical strength and the motor usage would be primarily gross.

The job should be part-time so that John has a chance to understand what is expected of him and to allow him to mature. A job that fits the description nursery laborer was obtained for John by the director. Pre-training preparation conducted at VTD included hoeing and weeding, tree and bush removal, loading and unloading trucks, watering plants.

After three months in his new job, John's performance was evaluated by the director. "John works for one-half day five days a week or 20 hours per week. Ninety percent of his job duties entail pulling the weeds between the various shrubbery and trees at the nursery. John does an excellent job and has since he started. He ran into some endurance problems at first due to the nature of the job. The primary problem that he does have is on various days he will not produce as much as he should because he daydreams quite a bit. When he works with other employees he likes to talk most of the time. The employer is very understanding and does an excellent job with John. He has received a 10 cent increase which gives him $1.10 per hour. At this point I feel that John is working to his optimum level and to put more pressure on him than he puts on himself and than what he receives from his father would be to his detriment."

Follow-Up

Each trainee has a staff person designated as case manager to be responsible for his successful progress (the case manager is generally the vocational teacher). After the director has located and secured a job opportunity for a trainee, the case manager becomes responsible for actual placement, on-the-job assistance with any adjustment problems and job restructuring, and short-term (two to three months) follow-up.

Once the trainee has stabilized on the job, the director will continue the long-term follow-up to ensure continued successful placement. This task is normally accomplished through regular visits to the employer and employee about two to three times per year. Each follow-along contact is recorded and described in the trainee's job contact sheet which is maintained in the trainee's file. If a trainee loses a job, then he may be readmitted to the VTD for retraining and may be placed in another job when he is ready. Exhibit 26 provides an example of the follow-along process and the use of the Job Contact Sheet.

Returning to John's case provides a good example of a long-term follow-along by the director. Fifteen months after John's first placement in a plant nursery (a seasonal job from April to October), the director wrote the following report on his Job Contact Sheet: "John is employed on this job from early spring until late fall. The quality of work is adequate; however, his output is marginal. The first two months of employment in 1971 were problematic because John's attention span was short, and we had problems with his daydreaming. The last four months of his employment in 1971 were much better, and the employer was satisfied with his work at that time. In November of 1971, he returned to the department and worked in the shop both on production and academic situations. He returned to the job in April of 1972, and during this four-month period, he has been very spasmodic in his work. The basic problem continues to be his attention span and his overriding desire to interact with other individuals. He still daydreams when he is by himself, and when he is working with others on a job he talks constantly. John fantasizes a great deal about the opposite sex and has a strong desire to move toward independence in the home. My feelings at this time are that John should be placed on a work station job rather than return next spring to the nursery job." John did not return to the nursery. Instead, he was placed in a McDonald's hamburger outlet in a cleanup and general labor position. He is doing well in this placement, and the manager is satisfied with his work. John

Exhibit 26

AUX CHANDELLES VOCATIONAL TRAINING DEPARTMENT

JOB CONTACT SHEET

Name Andrew Employer Contract Maintenance Firm

Immediate Supervisor __________ Hours 6:00-10:00 a.m.

Job Duties Janitor

Beginning Hourly Wage $1.00 Date of Employment July 31, 1972

Entered Program January 1971

DATE OF CONTACT

7-27-72 - In June of 1971, Andy was employed at Smith Restaurant in Bristol, Indiana. He functioned rather adequately on a part-time basis at the restaurant. His job duties were dishwashing and he received $1.00 per hour. He had some problems adjusting to the job, however, between his mother, the employer and myself, working with Andy, he adjusted rather well. He functioned adequately on the job for 3 months and then several incidents developed which led the employer to release Andy from the job. The restaurant business increased and Mr. Smith was in need of a full-time dishwasher who could do the job faster than Andy. Also on several occasions, Andy took his shirt off and went out into the dining area to bus dishes. I feel if I would have been notified immediately of this problem we could have corrected it, however, due to the job load increasing Andy would have probably been terminated anyway.

Andy will be employed as a janitor at Robertson's and I feel the work station concept will meet the needs of Andy very adequately.

12-20-72 - Andy continues to work at Robertson's and to do a very adequate job. The supervisor states that Andy is one of his most stable workers and Andy seems to enjoy the work quite a bit. Andy has complained of pain in his right knee and the supervisor suggested to him that he start using his left hand to operate the sweeper and thereby take the pressure off the right leg. This seems to help.

himself is pleased with his new position; he enjoys the work and the frequent contact with other people. John was recently named "maintenance man of the year" for the McDonald stores in Elkhart County.

The VTD also operates an adult education program for trainees who have completed the program and are placed on jobs. There are three groups of adult education classes which meet two nights per week and on Saturday. They offer academic training, group discussions, recreation activities and basic living skills such as cooking and personal finances.

Managing the Program

The operation of VTD is relatively simple, partly because of the size of the program and partly because of the fact that the VTD is one of many program services administered by ECAR. The director has a small staff to administer and has maintained a good working rapport with it. Most of the administrative chores, such as budget preparation and submission and long-range fiscal planning, are taken care of by the central ECAR office.

The information system is a simple one. It is based primarily on the students' intake documentation, Individual Program Plan, Progress Assessment Chart and anecdotal records such as the Job Contact Sheet and the Vocational Prognosis Report. There is no formal self- or third-party evaluation planned or accomplished to date. ECAR anticipates that the local school districts will eventually assume responsibility for the VTD as has been the case with other ECAR programs. For the immediate future, however, ECAR will continue to operate the VTD.

The program has six full-time staff members: two vocational teachers and one aide; one skills improvement teacher and one aide; and the program director. Brief descriptions of the jobs are presented in Exhibit 27. The business background of the director appears to be a very useful, although not an indispensable, element in the program's effectiveness. The development of the work pacer and his approach to employers have proven effective. His empathy for what the employer is looking for in an employee has also helped the placement effort. Partly because of the limited staff size, the director enjoys a close rapport with his staff, which aids in accomplishment of his administrative chores. He also enjoys a good working relationship with the principal of the JSDC.

Exhibit 27

VOCATIONAL TRAINING DEPARTMENT PERSONNEL

Position	Job Description	Qualifications
Director	Program Administrator Placement Follow-along	B. A., Business M. A., Guidance & Counseling Counselor in Rehabilitation unit in State Hospital (5 years)
Vocational Education Teachers (2)	Training of students in VTD Program Home Readiness Program	a) B. A. in Special Education, Some work on M. A. 7 years working with MR's b) B. A. in Math 2 years teaching general education 2 years working with MR's
Skills Improvement Teachers (1)	Managing the sheltered work activity component Training students	B. A. in Special Education, some work on M. A 3 years experience in sheltered workshops
Teacher Aides (3)	Assist teachers in classroom and workshop; drive bus	B. A. in Special Education, 2 years working with emotionally disturbed

The VTD program receives supporting funds from a variety of local, state and federal sources. Income sources are shown below:

Local		
United Way	17%	
Elkhart County Tax	28%	
Fees and Contributions	11%	
Total Local		56%
State		
Department of Public Instruction		
- Vocational Education for Disadvantaged & Handicapped	13%	
- Title I, Elementary and Secondary Education Act	7%	
	20%	
Department of Mental Health	16%	
Medicaid	4%	
	20%	
Total State		40%
Federal		
Staffing grant from DHEW. The grant served as start-up funds; it was awarded in 1970 for $13,000 and a declining balance in following years		4%
TOTAL		100%

The operating budgets for 1972 and 1973 have been as follows:

	1972	1973
Direct Cost	$32,104	$46,243
Indirect Cost	$16,716	$22,290
Total Cost	$48,820	$68,533
Per Student Cost	$ 1,427	$ 1,627

Direct Costs:	Director, teachers, aides Part-time speech and hearing services
Indirect Costs:	Management personnel Executive Director Director of Counseling Business Manager Building maintenance and utilities

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The program is providing vocational education to the most under-served and oft-forgotten handicapped population, the severely handicapped. By using such aids as the work pacer and the Progress Assessment Chart to construct an Individual Program Plan, Aux Chandelles has been able to place these students in one of three degrees of employment. The difference between the expectations of these students after Aux Chandelles and those of similar students without a similar program cannot be overemphasized.

APPENDIX D

DEVELOPMENT OF THE MANUAL

DEVELOPMENT OF THE MANUAL

Under contract to the Bureau of Education for the Handicapped, Management Analysis Center, Inc., (MAC) was asked to develop technical manuals describing three types of vocational education programs for the handicapped:

Type 1: Modified regular vocational education programs which serve handicapped students in regular classrooms

Programs classified as "Type 1" are those in which handicapped students are served in the same classroom with regular vocational students. "Type 1" programs are those which demonstrate the modifications to regular vocational programs necessary to enable handicapped students to adapt to regular vocational education classrooms. These programs are directed toward full-time employment for the handicapped student in a normal, integrated work environment.

Type 2: Special vocational education programs for handicapped students

Programs classified as "Type 2" are those which are designed for handicapped students in non-integrated (handicapped and regular students) classrooms. These programs are directed toward full-time employment for the handicapped student in an integrated work environment.

Type 3: Vocational education programs for severely handicapped students in special classes or residential schools

Programs classified as "Type 3" are non-integrated programs for handicapped students whose handicapping conditions are so severe as to prevent their immediate inclusion in special vocational education programs as defined in Type 2. These programs are directed toward reducing the student's level of dependency.

The Work Statement of the Request for Proposals (RFP) stated that this contract concerns the first two phases of a five-phase effort:

I. Identification of High Quality Programs
II. Development of Technical Manuals to Describe Programs
III. Demonstration
IV. Evaluation
V. Dissemination

The RFP directed the contractor in the first phase to draw a "large set" of existing programs considered effective by persons or groups concerned with vocational education and the handicapped. Sifting and analysis of programs within this "large set" would result in a smaller set of programs which would be used as the basis for Phase II, the development of the technical manuals.

MAC's approach was to accomplish the two phases in four major steps:

1. Develop practical methods or measures of identifying programs effective in reducing the level of dependency of handicapped students in order to discriminate among those in the universe of Vocational Education Programs for the Handicapped.
2. Using those methods, screen existing programs to identify those which are currently effective.
3. Document and evaluate selected programs.
4. Develop technical manuals which describe programs and offer adaptation techniques.

The first step included the incorporation of those methods into an instrument to allow the "large set" screening in the second step to take place. The resulting approximately thirty programs from this first screening were further studied via site visits to each. This led to the third step which involved the final selection of the most effective programs for primary emphasis in the technical manuals.

To assist in all stages of the project, MAC assembled an Advisory Board consisting of the following members:

Mary P. Allen, American Vocational Association
Ray Andrus, AFL/CIO
Mark Battle, Mark Battle Associates
S. J. Bonham, Jr., Director of Special Education, State of Ohio
David Bushnell, Human Resources Research Organization
Calvin Dellefield, National Advisory Council on Vocational Education
Roy Dugger, President, Texas State Technical Institute
Harold Goldstein, U. S. Department of Labor
Kathryn Gorham, National Association for Retarded Children
Aaron Gray, Assistant Superintendent for Special Services, Peoria Public Schools
Emily Lamborn, National Rehabilitation Assocation

H. Paul Messmer, President's Committee on Employment of the Handicapped
Jack M. Sink, Staff Development Center, University of Georgia
Robert Taylor, Center for Vocational Technical Education, Ohio State University
Fred Weintraub, Council for Exceptional Children

MAC's project team also included four consultants:

Richard J. Baker, Auburn University
Oliver P. Kolstoe, Northern Colorado University
Arnold B. Sax, Stout State University
Donnalie Stratton, Bureau of Vocational Education, State of Kentucky

A letter was sent to a large number of individuals and organizations asking for the nomination of effective programs for inclusion in the survey. The nominating group consisted of (1) all state directors of special education, vocational education, vocational rehabilitation, and mental health; (2) various private organizations, interest groups, and individual professionals suggested by the consultants, Advisory Board, and USOE.

Approximately 450 programs were nominated, and a questionnaire was sent to each nominated program. Completed questionnaires were returned by 330 programs, a response rate of 73 percent. Thirty programs were selected for site visits.

The questionnaire was designed to elicit the following information directly from the program director (or principal) at the school level:

1. Program Identification
    a. Basic identifying information such as the name of the program, location, administering organization, director's name, geographic area served, length of existence, etc.
    b. Description of the three program types and comparative classification by the respondent of the program.

2. Student Characteristics
    a. Number of handicapped students enrolled by type of handicap.
    b. The degree of integration (handicapped and regular students in the same classroom) or segregation (handicapped students only in the same classroom) of handicapped students enrolled.

   c. The age groups of the handicapped students enrolled.
   d. The demographic distribution of the handicapped students enrolled.
   e. The ethnic distribution of the handicapped students enrolled.

3. Program Description and Content
   a. Narrative description of the program.
   b. A brief description of the screening techniques used by the program in selecting enrollees.
   c. An enumeration of the program components offered to handicapped students.
   d. A listing of the occupational areas offered by the program to its handicapped students.
   e. Length and distribution of time in program for the handicapped students.

4. Program Resources
   a. Number and type of professional and administrative personnel employed by the program.
   b. Special or innovative facilities and equipment used in the program.
   c. Degree and nature of outside cooperation by other agencies or organizations and by the community and parents.

5. Program Results
   a. Indications of the program's placement success of its handicapped students in several categories such as full-time competitive employment, sheltered workshops, higher educational programs, and vocational rehabilitation programs.
   b. The nature of program self-evaluation and indications of the results of these self-evaluations.
   c. A narrative description of any other results of evaluations (internal or external) or unique features of the program.

6. Program Replicability
   a. Features enhancing the replicability of the program in other areas or for other handicapped conditions.
   b. Limitations on program replicability because of certain features of the program.

This information was used to select the thirty programs for site visits by relating the responses on the individual questions to three major questions about each program in comparison to the other programs responding within each of the three program types previously described:

1. How effective is the program in reducing the level of dependency of its handicapped students in comparison with other programs of the same type?

2. How comprehensive is the range of services and education offered by the program in comparison with other programs of the same type.

3. How replicable is the program for other geographic areas or for other handicapping conditions, in comparison with other programs of the same type?

Selection of the thirty programs for site visits required a complex systematic set of iterations, involving ranking the programs along a number of quantitative and qualitative dimensions. Principle factors considered in selecting programs within each of the three types included:

- Cost/results ratios
- Variety and inclusiveness of the range of program components offered
- Variety of occupational areas available to the handicapped student
- Innovativeness and resourcefulness with which the program used facilities, the resources of other agencies, community and parent involvement, and business involvement
- Features which would enhance or limit replicability
- Balance among large and small programs serving students with different characteristics (e.g., handicapped condition, age, sex, race, geographic area, urban/rural)

The selection of the group of thirty programs for site visits was very difficult. Many outstanding programs had to be rejected, primarily for two reasons: First, their inclusion would not contribute to the overall balanced distribution desired (small/large, urban/rural, etc). Or, second, they would probably not be widely replicable due to unusual limiting features; e.g., extremely generous financial support or dependence on unique local circumstances unlikely to be found elsewhere. Other excellent programs had to be rejected because they were post-secondary or adult programs; MAC's mandate was to concentrate on programs which primarily serve students aged 0-21 years.

Revisits were then made to the three programs selected for inclusion and to several other programs. Additional information was gathered so complete case studies could be prepared and significant features from 27 of the 30 programs could be written in the form of "modules". These modules were provided to the team members in charge of drafting each chapter in the manual. Finally, sections were also prepared as an introduction and a diagnostic self-evaluation instrument for the reader.

The above description is, of course, only a summary and does not deal with many of the review steps involved in a project of this sort. The project description is included to provide introductory background on how this volume was prepared and, more importantly, to emphasize that the contents are based on proven techniques and methods found in actual practice.

It should be noted that at the time the final design of the manuals was developed, it was agreed that there should be one volume to describe adaptive techniques and several sample programs rather than three manuals, each describing a model program. The study revealed that no one "model" is appropriate for every situation. The administrator, teacher, or other consumer of this volume is directed toward assessing the specific needs of their target group and area and, only then, toward deciding which techniques or improvements coincide with those needs and with the resources available.